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Manitoba Health

Dental Health

Manitoba Health

MG 14532

1985 ANNUAL REPORT

OF

FLUORIDATED WATER SUPPLIES

IN

MANITOBA

Prepared By:
Jim Senka, B.Sc.
Manitoba Health/Dental Health

INTRODUCTION

In 1985, 38 Manitoba communities were receiving artificially fluoridated water. Artificial fluoridation was also practised at 1 provincial, and 3 federal facilities (Appendix A). The federal facilities are not included in this report because they are under federal jurisdiction.

Since technical staff was not available for direct involvement such as problem-solving in the field, this report will consist of a presentation of results from the sampling program, along with appropriate comments, where possible, based on our retrospective discussions with the water treatment plant operators. These results were compiled on individual data sheets and sent, with a covering letter, to the facility owner with a copy to the plant operator, (APPENDICES B and C). The results were also compiled on a master table illustrating the results from all samples from all facilities for 1985, (TABLE 1).

Past annual reports have contained objectives set by the office evaluating the fluoride program. However, since field staff were not available in 1985, objectives were not established for 1985.

Previous fluoride program annual reports were based on the Manitoba Government fiscal year, April 1st to March 31st, whereas year-end report evaluation has been changed to coincide with the calendar year. The program is based on a two-week sampling period, and the sampling year will begin on the first Saturday in January.

DISCUSSION

Thirty-eight communities, plus 1 provincial facility (Gimli properties) and 3 federal facilities (Canadian Airforce bases at Beausejour, Gypsumville and Shilo) artificially fluoridated their drinking water and submitted bi-weekly composite samples for fluoride analyses. The Town of Altona and Villages of Gretna, Gnadenfeld, New Bercthal and Somerfeld are provided with fluoridated water from the water treatment plant in Neche, North Dakota. This water is monitored for fluoride content at Altona.

A total of 901 out of 988 required samples were submitted. (Since they do not fall under provincial jurisdiction, no samples were required from the City of Winnipeg, or the Airforce Bases.) Two hundred and ten, or 23% of the samples submitted contained fluoride in concentrations outside the recommended range.

A letter was sent to all facilities in August, 1985 stating that the recommended optimum fluoride concentration in Manitoba drinking water was raised from 1.0 to 1.2 mg/l. Apparently, the letter announcing the change in the recommended optimum concentration was not seen by all water treatment plant operators, and therefore in some instances the operating level remained unchanged at 1.0 mg/l. All water plant operators have been made aware of this increase for 1986.

The decision to raise the recommended optimum level from 1.0 to 1.2 mg/l was consistent with reports published by the Minister of National Health and Welfare (Guidelines for Canadian Drinking Water Quality - 1978) and The Canadian Public Health Association (Criteria Document in Support of a Drinking Water Standard for Fluoride, Canada, 1979), as well as the optimum fluoride level in drinking water recommended by all other Canadian Provinces.

The fluoride test results from the bi-weekly samples were monitored by the Dental Health Educator from Manitoba Health/ Dental Health who telephoned water treatment plant operators upon receipt of fluoride results which were outside the recommended limits. This procedure was found to be effective as a short term interum measure to keep the fluoride levels stable, however there wasn't staff available to assist the operator with any equipment malfunction which directly affected the objective of ensuring an optimum fluoride level of 1.0 mg/l in all treated waters most of the time.

APPENDIX "A"

FLUORIDATED WATER SUPPLIES IN MANITOBA

PROVINCE OF MANITOBA

DEPARTMENT OF HEALTH

COMMUNITIES WITH FLUORIDATED WATER SUPPLIES AS OF MAY 1, 1986

MUNICIPALITY	STATUS	POPULATION 1981 CENSUS	DATES APPROVAL	DATES ON-LINE	BACKGROUND LEVEL	TYPE OF FEED	TEST KIT
*ALTONA	Town	2,757	66 09 19	66 11 04	0.29	H SiF Acid	Nil
*BALDUR	Uninc. Village	344	66 09 19	67 11 15	0.22	NaF 3%	Ha
BOISSEVAIN	Town	1,660	56 11 05	57 01 11	0.20	NaF 2.3%	Ha F
BRANDON	City	36,242	53 08 11	55 03 08	0.20	Na SiF Dry	Ha
CARMAN	Town	2,408	65 06 22	65 11 03	0.26	NaF 1.8%	Ha
DAUPHIN	Town	9,871	57 08 02	80 05 03	0.14	NaF Slurry	Ha
*CRANBERRY PORTAGE	U.V.D.	948	83 03 19	83 12 14	-0.10	NaF 2%	Ha C
*DELORAINE	Town	1,136	67 07 28	68 09 24	0.16	NaF 3%	Ha
*ERICKSON	Village	540	72 10 12	73 05 04	0.23	NaF 1.5%	Ha
GILLAM	L.G.D.	1,427	74 08 14	84 06 09	-0.10	NaF	Ha
GIMLI	Town	1,550	63 08 01	63 12 23	0.45	NaF 3%	Ha Ex
GLADSTONE	Town	964	71 04 19	76 09 23	0.22	NaF 4%	Ha
GNADENFELD	Unic. Village	76		76 11 12	0.29	NaF 4%	Nil
*GRETNA	Village	545	66 09 19	66 11 04	0.29	NaF 4%	Nil
*HAMIOTA	Village	728	70 05 27	70 08 17	0.29	NaF 1%	Ha
HARTNEY	Town	490	64 01 02	64 12 16	0.20	NaF 1%	Ha
KILLARNEY	Town	2,342	60 10 12	60 10 25	0.19	NaF 4%	Ha
LAC DU BONNET	Town	2,339		85 09	-0.10	NaF	Ha
MacGREGOR	Village	795	65 06 03	69 04 16	0.19	NaF 3%	Ha
*McCREARY	Village	618	69 08 28	69 11 18	0.24	NaF 3%	Ha
*MANITOU	Village	861	64 01 21	65 05 13	0.19	NaF 3%	Ha
MELITA	Town	1,156					
MINNEDOSA	Town	2,637	60 01 25	60 07 07	0.28	NaF 3%	Ha F
MORDEN	Town	4,579	68 09 09	69 11 17	0.32	NaF 4%	Ha F
NEEPAWA	Town	3,425	63 06 10	63 07 10	0.24	Na SiF Dry	Ha
NEW BERGTHAL	Uninc. Village	127		76 11 12	0.29	NaF 4%	Nil
*PILOT MOUND	Village	838	68 10 25	70 12 21	0.21	NaF 3%	Ha
PINAWA	L.G.D.	2,011	63 11 26	64 01 14	0.08	NaF Dry	Ha
PORTAGE	City	13,086	57 12 20	58 01 13	0.20	Na SiF Dry	S.I.E.
*RESTON	Uninc. Village	589	67 09 13	68 11 26	0.13	NaF 1.5%	Ha
RIVERS	Town	1,107	68 06 07	85	0.18	NaF 4%	
ROBLIN	Town	1,953	69 04 29	70 06 01	0.26	NaF 4%	Ha
*ROSSBURN	Village	696		77 12 05	LO.10	NaF 1.5%	Ha
*RUSSELL	Town	1,660	65 09 10	67 03 01	0.21	NaF 2%	Ha
SOMMERFELD	Uninc. Village	94		76 11 12	0.29	NaF 4%	Nil
SOURIS	Town	1,731	62 07 11	63 11 05	0.19	NaF 3%	Ha C/P
STEINBACH	Town	6,676	59 11 04	60 05 23	0.39	NaF 3%	Ha
SWAN RIVER	Town	3,782	80 10 07	82 08 08	0.20	NaF 3%	Ha
THE PAS	Town	6,390	64 07 20	64 07 23	0.25	Na SiF Dry	Ha C/P
TREHERNE	Village	743	72 11 10	73 06 11	0.32	NaF 4%	Ha F
VIRDEN	Town	2,940	71 01 11	71 04 08	0.44	NaF 4%	Ha C
*WINKLER	Town	5,046	64 01 21	64 06 24	0.26	NaF 3%	Ha
WINNIPEG	City	564,473	56 07 20	56 12 28	0.10	H SiF Acid	S.I.E.

MUNICIPALITY	STATUS	POPULATION 1981 CENSUS	DATES APPROVAL	DATES ON-LINE	BACKGROUND LEVEL	TYPE OF FEED	TEST KIT
PROVINCIAL							
GIMLI	Ind. Park	600		69 04 18	0.43	NaF 4%	Ha
FEDERAL							
BEAUSEJOUR	C.F.S.	208		68 05 28	0.17	NaF 4%	Ha
GYPSUMVILLE	C.F.S.	330		69 08 28	0.15	NaF 4%	Ha
SHILO	C.F.S.	3,200		69 01 14	0.12	NaF 4%	T
TOTAL		689,289					

Notes:

The Communities of Altona, Gretna, Gnadenfeld, New Bercthal and Sommerfeld are served by fluoridated water piped in from Neche, North Dakota. This water, which is fluoridated at the Neche water treatment plant, and monitored for fluoride content in Altona, is provided to the above communities under the terms of an agreement between the Manitoba Water Services Board and the City of Neche.

* These treatment plants are owned and operated by Manitoba Water Services Board.

L means Less Than

HaF:	Hach Filterphotometer	T:	Taylor
Ha:	Hach Spectrophotometer	S.I.E.:	Specific Ion Electrode
Ha Ex:	Hach Expanded Scale pH/Fluoride Meter (Electrode method)	Ha C/P:	Hach Colorimeter/pH Meter
		Ha C:	Hach DR-100 Colorimeter

APPENDIX "B"

YEAR END SUMMARIES FOR MANITOBA WATER

SERVICES BOARD TREATMENT PLANTS

Manitoba

Memorandum

Date

To Mr. Erv Griffin
General Manager
Manitoba Water Services Board
P.O. Box 1059
Brandon, MB
R7A 6A2

From Jim Senka, B.Sc.
Fluoridation Officer
Manitoba Health - Dental Health
3-831 Portage Ave.
Winnipeg, MB
R3G ON6

Subject ARTIFICIAL FLUORIDATION AT MANITOBA WATER SERVICES BOARD FACILITIES DURING 1985.

Enclosed are data sheets and year-end letters for each Manitoba Water Services Board water treatment facility which practised artificial fluoridation in 1985.

Since field staff was not in place for direct involvement in the fluoridation program during 1985, the year-end letters represent a summary of the results, and comments on the individual system based on discussions with the plant operators. Bi-weekly sampling results were monitored during the year by our Dental Health Educator who telephoned operators to inform them if their fluoride results were outside the recommended limits. This measure was found to be effective to a degree, but only as an interum measure until the field staff position could be filled.

Note that the sampling year, consisting of 26 bi-weekly samples has been changed to coincide with the calendar year, beginning on the first Saturday in January.

The optimum recommended fluoride level for Manitoba drinking water was changed from 1.0 to 1.2 mg/l in August 1985. The basis for this decision was the recognition of 1.2 mg/l as being the optimum for our climate by the Department of National Health and Welfare and the Canadian Public Health Association.

Yours truly,

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/mb
attch.

First | Fold

Manitoba

Health

File: 7.2.1

December 22, 1986

Mr. Erv Griffin
General Manager
Manitoba Water Services Board
P.O. Box 1059
Brandon, MB
R7A 6A2

Subject- 1985 FLUORIDE CONTROL DATA FOR ALTONA

Attached is a data sheet summarizing the 1985 fluoride program for the Town of Altona.

The water works superintendent, Mr. D. Klassen, submitted 25 of the required 26 bi-weekly samples. Of these, 15, or 60 % contained fluoride in concentrations outside the acceptable range of 0.80 to 1.20 mg/l. (The acceptable range in North Dakota which supplies water to Altona, is 1.00 to 1.50 mg/l). However, since Manitoba has recently raised its acceptable range to between 1.00 and 1.40 mg/l; this would reduce the number of samples outside the acceptable range to 28% by Manitoba standards, and 8% by North Dakota standards.

Given the difference in standards between Manitoba and North Dakota, it is our opinion that Altona waterworks superintendent, Mr. D. Klassen and Mr. C. D'Heilly, Neche, N.D. water treatment plant operator have done commendable jobs.

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/mb
attch.
c.c. Mr. Cliff D'Heilly
Mr. Dick Klassen

FLUORIDATION CONTROL RECORD

LOCATION: ALTONA

CHEMICAL: H2Si f6 (Fluosilicic Acid) 25% (NECHE)

TEST KIT: Hach Filterphotometer (NECHE)

FLUORIDATOR : Liquid Metronics-Model A-10(NECHE)

OPERATOR: Dick Klassen (Altona)

TELEPHONE: OFFICE: 324-6633 324-6439

Average Nat. Cont. 0.29

Cliff D'Heilly (NECHE)

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	1.04					
Jan. 19 - Feb. 1	1.02					
Feb. 2 - Feb. 15	0.92					
Feb. 16 - Mar. 1	1.20					
Mar. 2 - Mar. 15	1.00					
Mar. 16 - Mar. 29	1.25					
Mar. 30 - Apr. 12	1.44					
Apr. 13 - Apr. 26	1.45					
Apr. 27 - May 10	1.45					
May 11 - May 24	1.35					
May 25 - June 7	1.33					
June 8 - June 21	1.33					
June 22 - July 5	-					
July 6 - July 19	1.30					
July 20 - Aug. 2	1.38					
Aug. 3 - Aug. 16	1.50					
Aug. 17 - Aug. 30	1.44					
Aug. 31 - Sept. 13	1.16					
Sept. 14 - Sept. 27	0.96					
Sept. 28 - Oct. 11	1.00					
Oct. 12 - Oct. 25	1.19					
Oct. 26 - Nov. 8	1.26					
Nov. 9 - Nov. 22	1.21					
Nov. 23 - Dec. 6	1.17					
Dec. 7 - Dec. 20	1.27					
Dec. 21 - Jan. 3/86	1.22					

New Manitoba Standards (1.0 - 1.4) North Dakota Standards (1.0 - 1.5)

Average	1.23					
Range	0.92-1.50					
% Outside Recommended Limits	60%	28%		8%		
No. of Samples	25					

Manitoba

Health

File: 7.2.1

December 22, 1986

Mr. Erv Griffin
General Manager
Manitoba Water Services Board
P.O. Box 1059
Brandon, MB
R7A 6A2

Subject: 1985 FLUORIDE CONTROL DATA FOR BALDUR

The attached data sheet summarizes the 1985 fluoride program for the Town of Baldur. All the required 25 bi-weekly composite samples were submitted. (No sample was required from February 2 to 15 because the plant was down for up-grading). One sample, or 4% contained fluoride in concentration outside the acceptable range. Note that the acceptable range was changed from 0.80 - 1.20 to 1.00 -1.40 in August, 1985.

The operator Mr. DeBaets has been very conscientious in keeping the fluoride levels within the correct range and is to be commended.

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/mb
attch.
c.c. Mr. Adolphe DeBaets

FLUORIDATION CONTROL RECORD

LOCATION: BALDUR
CHEMICAL: NaF 3%
TEST KIT: Hach Spectrophotometer

FLUORIDATOR : W&T A-588
OPERATOR: Adolph DeBaets
TELEPHONE: Office: 842-3234 Res: 535-2480

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	0.88	1.00	1.00	1.03	0.22	1.25
Jan. 19 - Feb. 1	0.87	1.00	1.00	0.94	0.22	1.16
Feb. 2 - Feb. 15	-	upgrading plant				-
Feb. 16 - Mar. 1	0.89	1.00	1.00	1.02	0.22	1.24
Mar. 2 - Mar. 15	0.95	1.00	1.00	0.94	0.22	1.16
Mar. 16 - Mar. 29	0.99	1.00	1.00	1.02	0.22	1.24
Mar. 30 - Apr. 12	0.95	1.00	1.00	1.10	0.22	1.32
Apr. 13 - Apr. 26	1.02	1.00	1.00	1.02	0.22	1.24
Apr. 27 - May 10	0.98	1.00	1.00	1.03	0.22	1.25
May 11 - May 24	0.82	1.00	1.00	0.92	0.22	1.14
May 25 - June 7	0.95	1.00	1.00	1.01	0.22	1.23
June 8 - June 21	0.94	1.00	1.00	0.94	0.22	1.16
June 22 - July 5	0.93	1.00	1.00	1.05	0.22	1.27
July 6 - July 19	0.98	1.00	1.00	1.06	0.22	1.28
July 20 - Aug. 2	0.97	1.00	1.00	0.98	0.22	1.20
Aug. 3 - Aug. 16	1.09	1.20	1.14	1.10	0.22	1.32
Aug. 17 - Aug. 30	1.00	1.20	1.20	1.27	0.22	1.49
Aug. 31 - Sept. 13	1.27	1.20	1.20	1.13	0.22	1.35
Sept. 14 - Sept. 27	0.95	1.20	1.20	1.12	0.22	1.34
Sept. 28 - Oct. 11	1.01	1.20	1.20	1.17	0.22	1.39
Oct. 12 - Oct. 25	1.12	1.20	1.20	1.13	0.22	1.35
Oct. 26 - Nov. 8	1.05	1.20	1.20	1.28	0.22	1.50
Nov. 9 - Nov. 22	1.05	1.20	1.20	1.08	0.22	1.30
Nov. 23 - Dec. 6	0.97	1.20	1.20	1.04	0.22	1.26
Dec. 7 - Dec. 20	1.12	1.20	1.20	1.20	0.22	1.42
Dec. 21 - Jan. 3/86	1.28	1.20	1.20	1.18	0.22	1.40

Average	1.00	1.09	1.09	1.07	0.22	1.29
Range	0.82-1.28	1.00-1.20	1.00-1.20	0.94-1.28		1.44-1.48
% Outside Recommended Limits	4%					
No. of Samples	26	26	26	26	26	26

Manitoba

Health

File: 7.2.1

December 22, 1986

Mr. Erv Griffin
General Manager
Manitoba Water Services Board
P.O. Box 1059
Brandon, MB
R7A 6A2

Subject: 1985 FLUORIDE CONTROL DATA FOR CRANBERRY PORTAGE

The attached data sheet summarizes the fluoride program for Cranberry Portage in 1985.

20 of the 26 required bi-weekly samples were submitted. Of these, 2, or 10% contained fluoride in concentrations outside the acceptable range of 0.80 to 1.20 mg/l.

The operator, Mr. Nagy has done a commendable job in maintaining the fluoride levels within the correct range.

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/mb
attch.
c.c. Mr. Dixie Nagy

FLUORIDATION CONTROL RECORD

LOCATION: CRANBERRY PORTAGE

CHEMICAL: NaF 2%

TEST KIT: Hach DR-100 Colorimeter

FLUORIDATOR : W&T Series 44-747 Ser#LDP 7591

OPERATOR: Mr. Dixie Nagy

TELEPHONE: Home: 472-3453 WTP: 472-3621
Office: 472-3219

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	0.77	0.85	0.80	0.38	0.10	0.48
Jan. 19 - Feb. 1	-	-	-	-	-	-
Feb. 2 - Feb. 15	1.02	0.98	1.03	0.65	0.10	0.75
Feb. 16 - Mar. 1	-	1.00	1.06	0.79	0.10	0.89
Mar. 2 - Mar. 15	1.00	1.11	1.04	0.70	0.10	0.80
Mar. 16 - Mar. 29	1.15	1.25	1.04	0.72	0.10	0.82
Mar. 30 - Apr. 12	0.91	0.50	0.85	0.55	0.10	0.65
Apr. 13 - Apr. 26	1.08	0.93	1.01	0.88	0.10	0.98
Apr. 27 - May 10	1.18	1.13	1.10	0.76	0.10	0.86
May 11 - May 24	0.64	0.80	0.71	0.51	0.10	0.61
May 25 - June 7	1.00	-	-	-	-	-
June 8 - June 21	1.09	1.05	1.03	0.75	0.10	0.85
June 22 - July 5	1.20	1.18	1.11	0.83	0.10	0.93
July 6 - July 19	-	-	-	-	-	-
July 20 - Aug. 2	-	-	-	-	-	-
Aug. 3 - Aug. 16	1.11	1.00	1.17	0.82	0.10	0.92
Aug. 17 - Aug. 30	1.08	1.08	1.10	0.95	0.10	1.05
Aug. 31 - Sept. 13	1.08	1.10	1.09	0.84	0.10	0.94
Sept. 14 - Sept. 27	1.04	1.11	1.07	0.82	0.10	0.92
Sept. 28 - Oct. 11	1.09	1.10	1.12	0.78	0.10	0.88
Oct. 12 - Oct. 25	-	1.03	1.10	0.85	0.10	0.95
Oct. 26 - Nov. 8	-	-	-	-	-	-
Nov. 9 - Nov. 22	0.88	0.90	0.88	0.79	0.10	0.89
Nov. 23 - Dec. 6	-	1.04	0.93	0.74	0.10	0.84
Dec. 7 - Dec. 20	-	1.00	0.94	0.73	0.10	0.83
Dec. 21 - Jan. 3/86	1.13	1.12	1.13	0.84	0.10	0.94

Average	1.03	1.01	1.01	0.75	0.10	0.85
Range	0.64-1.20	0.50-1.25	0.71-1.17	0.38-0.95		0.48-1.05
% Outside Recommended Limits	10.0%					
No. of Samples	18	20	20	20		20

Manitoba

Health

File: 7.2.1.

December 22, 1986

Mr. Erv Griffin
General Manager
Manitoba Water Services Board
P.O. Box 1059
Brandon, Manitoba
R7A 6A2

Dear Sir:

Re: 1985 FLUORIDATION CONTROL DATA FOR DELORAINE

The attached data sheet summarizes the 1985 fluoride program for the Town of Deloraine.

25 of the 26 required bi-weekly samples were submitted. Of these, 2, or 8% contained fluoride in concentrations outside the acceptable range. Note that the acceptable range was changed from 0.80 - 1.20 to 1.00 - 1.40 mg/l in August, 1985.

The water treatment plant operator Mr. Arnold has done a commendable job of maintaining the fluoride levels of the treated water within the correct range.

Yours truly,

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/lk
attch.
c.c. Mr. Bill Arnold

FLUORIDATION CONTROL RECORD

LOCATION: DELORAINE

CHEMICAL: NaF 3%

TEST KIT: Hach Spectrophotometer

FLUORIDATOR : W&T A-745

OPERATOR: Bill Arnold

TELEPHONE: Plant: 747-2062

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	1.04	1.10	1.10	0.73	0.16	0.89
Jan. 19 - Feb. 1	0.78	1.10	1.10	0.92	0.16	1.08
Feb. 2 - Feb. 15	0.95	1.00	1.05	0.90	0.16	1.06
Feb. 16 - Mar. 1	-	1.00	1.03	1.22	0.16	1.38
Mar. 2 - Mar. 15	1.06	1.10	1.09	0.68	0.16	0.84
Mar. 16 - Mar. 29	0.83	-	1.04	0.75	0.16	0.91
Mar. 30 - Apr. 12	0.87	-	1.10	0.63	0.16	0.79
Apr. 13 - Apr. 26	0.80	1.05	1.05	0.56	0.16	0.72
Apr. 27 - May 10	0.87	1.05	1.04	0.83	0.16	0.99
May 11 - May 24	0.96	1.00	1.08	0.82	0.16	0.98
May 25 - June 7	0.98	1.05	1.06	0.78	0.16	0.94
June 8 - June 21	0.95	1.00	1.04	0.75	0.16	0.91
June 22 - July 5	1.03	-	1.04	0.82	0.16	0.98
July 6 - July 19	0.82	1.00	1.00	0.76	0.16	0.92
July 20 - Aug. 2	1.08	1.00	1.09	0.83	0.16	0.98
Aug. 3 - Aug. 16	1.22	1.10	1.05	1.13	0.16	1.29
Aug. 17 - Aug. 30	1.25	1.10	1.16	1.10	0.16	1.26
Aug. 31 - Sept. 13	1.37	1.20	1.20	1.18	0.16	1.34
Sept. 14 - Sept. 27	1.30	1.10	1.12	1.30	0.16	1.46
Sept. 28 - Oct. 11	1.35	1.15	1.19	1.33	0.16	1.49
Oct. 12 - Oct. 25	1.33	1.10	1.18	0.79	0.16	0.95
Oct. 26 - Nov. 8	1.42	1.20	1.20	1.20	0.16	1.36
Nov. 9 - Nov. 22	1.40	1.20	1.20	1.28	0.16	1.44
Nov. 23 - Dec. 6	1.22	-	1.16	1.10	0.16	1.26
Dec. 7 - Dec. 20	1.00	1.05	1.09	1.09	0.16	1.25
Dec. 21 - Jan. 3/86	1.33	-	1.09	1.07	0.16	1.23

Average	1.09	1.08	1.10	0.94	0.16	1.10
Range	0.78-1.42	1.00-1.20	1.04-1.20	0.56-1.33		0.79-1.49
% Outside Recommended Limits	8%					
No. of Samples	25	21	26	26		26

Manitoba

Health

File: 7.2.1

December 22, 1986

Mr. Erv Griffin
General Manager
Manitoba Water Services Board
P.O. Box 1059
Brandon, MB
R7A 6A2

Subject: 1985 FLUORIDE CONTROL DATA FOR ERICKSON

The attached data summarizes the 1985 fluoride program for the Village of Erickson.

All of the 26 required samples were submitted. Of these, 2, or 8 percent contained fluoride in concentrations outside the acceptable range of 0.80 to 1.20 mg/l.

These records reflect an improvement over past records and indicate that the operator, Mr. Marland Furewick has done a good job in controlling the fluoride levels within the correct range.

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/mb
attch.
c.c. Mr. Marland Furewick

FLUORIDATION CONTROL RECORD

LOCATION: ERICKSON
CHEMICAL: NaF 1.5%
TEST KIT: Hach Spectrophotometer

FLUORIDATOR : W&T A-588 Ser# NN296
OPERATOR: Marland Furewick
TELEPHONE: Res: 636-2409 Plant: 636-2971

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	0.87	1.08	1.09	0.87	0.23	1.10
Jan. 19 - Feb. 1	1.10	1.06	1.06	0.83	0.23	1.06
Feb. 2 - Feb. 15	1.07	1.14	1.13	-	0.23	-
Feb. 16 - Mar. 1	0.96	1.06	1.06	0.79	0.23	1.02
Mar. 2 - Mar. 15	1.15	1.06	1.05	0.75	0.23	0.98
Mar. 16 - Mar. 29	1.07	1.10	1.11	0.69	0.23	0.92
Mar. 30 - Apr. 12	0.94	1.06	1.08	0.77	0.23	1.00
Apr. 13 - Apr. 26	0.76	1.02	1.05	0.72	0.23	0.95
Apr. 27 - May 10	0.98	1.02	1.02	0.77	0.23	1.00
May 11 - May 24	1.16	1.10	1.09	0.66	0.23	0.89
May 25 - June 7	0.81	1.04	1.06	0.64	0.23	0.87
June 8 - June 21	0.93	1.02	1.02	0.75	0.23	0.98
June 22 - July 5	0.84	1.10	1.08	0.72	0.23	0.95
July 6 - July 19	0.90	1.10	1.09	0.75	0.23	0.98
July 20 - Aug. 2	1.14	1.10	1.11	0.85	0.23	1.08
Aug. 3 - Aug. 16	1.09	1.10	1.06	0.68	0.23	0.91
Aug. 17 - Aug. 30	1.17	1.12	1.13	0.86	0.23	1.09
Aug. 31 - Sept. 13	-	1.16	1.17	0.68	0.23	0.91
Sept. 14 - Sept. 27	1.19	1.18	1.18	0.66	0.23	0.89
Sept. 28 - Oct. 11	1.10	1.16	1.13	0.68	0.23	0.91
Oct. 12 - Oct. 25	0.92	1.16	1.17	0.66	0.23	0.89
Oct. 26 - Nov. 8	1.00	1.08	1.08	0.71	0.23	0.94
Nov. 9 - Nov. 22	0.87	1.14	1.15	0.63	0.23	0.86
Nov. 23 - Dec. 6	0.97	1.14	1.16	0.68	0.23	0.91
Dec. 7 - Dec. 20	0.76	1.06	1.06	0.69	0.23	0.92
Dec. 21 - Jan. 3/86	1.14	1.10	1.12	0.64	0.23	0.87

Average	1.00	1.09	1.10	0.73	0.23	0.96
Range	0.76-1.19	1.02-1.18	1.05-1.17	0.64-0.87		0.86-1.09
% Outside Recommended Limits	8.0%					
No. of Samples	25	26	26	25		25

Manitoba

Health

File: 7.2.1.

December 22, 1986

Mr. Erv Griffin
General Manager
Manitoba Water Services Board
P.O. Box 1059
Brandon, MB
R7A 6A2

Subject: 1985 FLUORIDATION CONTROL DATA FOR HAMIOTA

The attached data summarizes the 1985 fluoride program for the Town of Hamiota.

All of the required 26 bi-weekly samples were submitted. Of these, 3, or 12 percent contained fluoride in concentrations outside the acceptable range. Note that the acceptable range was changed in August from 0.80 - 1.20 to 1.00 - 1.40.

These records indicate that the operator, Mr. Hutchinson has done a very good job of maintaining the fluroide levels of the water within the correct range.

Jim Senka, B.Sc.
Fluoridation Officer

JS/mb
attch.
c.c. Mr. Frank Hutchinson

FLUORIDATION CONTROL RECORD

LOCATION: HAMIOTA

CHEMICAL: NaF 1% (0.75%)

TEST KIT: Hach Spectrophotometer

FLUORIDATOR : W&T A-745

OPERATOR: Frank Hutchison

TELEPHONE: Plant: 764-2531 Home: 764-2496
764-2281

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	1.07	1.10	1.15	0.78	0.29	1.07
Jan. 19 - Feb. 1	1.03	1.05	1.08	0.82	0.29	1.11
Feb. 2 - Feb. 15	1.10	1.05	1.11	0.71	0.29	1.00
Feb. 16 - Mar. 1	0.85	1.05	1.13	0.71	0.29	1.00
Mar. 2 - Mar. 15	0.92	1.05	1.07	0.72	0.29	1.01
Mar. 16 - Mar. 29	0.90	1.05	1.03	0.77	0.29	1.06
Mar. 30 - Apr. 12	0.99	1.00	1.07	0.81	0.29	1.10
Apr. 13 - Apr. 26	0.98	1.05	1.06	0.78	0.29	1.07
Apr. 27 - May 10	0.99	1.05	1.09	0.69	0.29	0.98
May 11 - May 24	0.86	1.05	1.06	0.68	0.29	0.97
May 25 - June 7	0.78	1.10	1.08	0.66	0.29	0.95
June 8 - June 21	0.95	1.05	1.08	0.66	0.29	0.95
June 22 - July 5	0.90	1.00	1.08	0.80	0.29	1.09
July 6 - July 19	0.91	1.05	1.09	0.71	0.29	1.00
July 20 - Aug. 2	0.95	1.00	1.03	0.63	0.29	0.92
Aug. 3 - Aug. 16	1.30	1.20	1.23	1.10	0.29	1.39
Aug. 17 - Aug. 30	1.27	1.25	1.23	0.95	0.29	1.24
Aug. 31 - Sept. 13	1.21	1.25	1.24	0.98	0.29	1.27
Sept. 14 - Sept. 27	1.09	1.25	1.25	0.90	0.29	1.19
Sept. 28 - Oct. 11	1.45	1.20	1.24	0.76	0.29	1.05
Oct. 12 - Oct. 25	1.12	1.26	1.23	0.94	0.29	1.23
Oct. 26 - Nov. 8	1.00	1.25	1.23	0.90	0.29	1.19
Nov. 9 - Nov. 22	1.10	1.20	1.21	0.85	0.29	1.14
Nov. 23 - Dec. 6	1.35	1.20	1.21	0.84	0.29	1.13
Dec. 7 - Dec. 20	1.35	1.20	1.21	0.88	0.29	1.17
Dec. 21 - Jan. 3/86	0.99	1.25	1.19	0.89	0.29	1.18

Average	1.05	1.12	1.13	0.80	0.29	1.09
Range	0.78-1.45	1.00-1.26	1.03-1.25	0.66-1.10		0.95-1.39
% Outside Recommended Limits	12%					
No. of Samples	26	26	26	26	26	26

Manitoba

Health

File: 7.2.1.

December 22, 1986

Mr. Erv Griffin
General Manager
Manitoba Water Services Board
P.O. Box 1059
Brandon, MB
R7A 6A2

Subject: 1985 FLUORIDE CONTROL DATA FOR LAC DU BONNET

The attached data summarizes the 1985 fluoride program for the Village of Lac DuBonnet.

17 of the required 18 bi-weekly composite samples were submitted. Of these, 8, or 47 percent contained fluoride in concentrations outside the acceptable limits.

Fluoride feed was discontinued from August 3 to August 16 while the test kit was being repaired. The fluoride levels in Lac Du Bonnet after this point have been much more acceptable.

Jim Senka

Jim Senka, B. Sc.
Fluoridation Officer

JS/mb
attch.
c.c. Mr. George Towles

FLUORIDATION CONTROL RECORD

LOCATION: LAC DU BONNET
FLUORIDATOR :
CHEMICAL: 3% NaF
OPERATOR: George Towle
TEST KIT: Hach Spectrophotometer
TELEPHONE: 345-8395

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	-	-	-	-		
Jan. 19 - Feb. 1	1.27	1.33	1.31	1.26	0.10	1.26
Feb. 2 - Feb. 15	1.27	1.29	1.22	1.19	0.10	1.19
Feb. 16 - Mar. 1	1.17	1.31	1.18	1.00	0.10	1.00
Mar. 2 - Mar. 15	1.23	0.90	1.20	1.15	0.10	1.15
Mar. 16 - Mar. 29	0.89	0.90	0.98	0.92	0.10	0.92
Mar. 30 - Apr. 12	1.13	0.96	1.03	1.18	0.10	1.18
Apr. 13 - Apr. 26	1.12	1.12	1.03	1.26	0.10	1.26
Apr. 27 - May 10	1.57	1.36	1.38	1.71	0.10	1.71
May 11 - May 24	1.30	1.27	1.25	1.34	0.10	1.34
May 25 - June 7	0.88	0.83	0.90	0.74	0.10	0.74
June 8 - June 21	1.13	1.05	1.07	1.42	0.10	1.42
June 22 - July 5	1.24	1.17	1.27	1.15	0.10	1.15
July 6 - July 19	1.15	1.07	1.16	0.73	0.10	0.73
July 20 - Aug. 2	0.70	0.81	0.80	0.55	0.10	0.55
Aug. 3 - Aug. 16	-	-	-	-	-	-
Aug. 17 - Aug. 30	-	-	-	-	-	-
Aug. 31 - Sept. 13	-	-	-	-	-	-
Sept. 14 - Sept. 27	-	-	-	-	-	-
Sept. 28 - Oct. 11	-	-	-	-	-	-
Oct. 12 - Oct. 25	-	-	-	-	-	-
Oct. 26 - Nov. 8	-	-	-	-	-	-
Nov. 9 - Nov. 22	0.75	-	-	-	-	-
Nov. 23 - Dec. 6	1.03	0.61	0.67	1.04	0.10	1.04
Dec. 7 - Dec. 20	1.00	0.98	1.05	1.08	0.10	1.08
Dec. 21 - Jan. 3/86	1.04	1.00	0.83	1.08	0.10	1.08

Average	1.10	1.06	1.08	1.12		1.12
Range	0.70 - 1.27	0.61 - 1.36	0.60 - 1.38	0.55 - 1.42		0.55 - 1.42
% Outside Recommended Limits	47%					
No. of Samples	18	17	17	16		16

Manitoba

Health

File: 7.2.1

December 22, 1986

Mr. Erv Griffin
General Manager
Manitoba Water Services Board
P.O. Box 1059
Brandon, MB
R7A 6A2

Subject: 1985 FLUORIDATION CONTROL DATA FOR MANITOU

The attached data summarizes the 1985 fluoride program for the Town of Manitou.

All of the required 26 bi-weekly samples were submitted. All samples contained fluoride in concentration within the acceptable range. Note that the acceptable range was changed in August from 0.80 - 1.20 to 1.00 - 1.40.

The operator, Mr. Lea has done an excellent job of keeping the fluoride levels of the treated water within the correct range.

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/mb
attch.
c.c. Mr. Percy Lea

FLUORIDATION CONTROL RECORD

LOCATION: MANITOU

FLUORIDATOR : W&T A-747

CHEMICAL: NaF 3%

OPERATOR: Percy N. Lea

TEST KIT: Hach Spectrophotometer

TELEPHONE: Plant: 242-2885

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	1.04	1.02	1.05	1.85	0.20	2.05
Jan. 19 - Feb. 1	1.10	1.05	1.10	0.90	0.31	1.21
Feb. 2 - Feb. 15	1.05	1.14	1.12	0.93	0.23	1.16
Feb. 16 - Mar. 1	1.05	1.08	1.14	0.81	0.23	1.04
Mar. 2 - Mar. 15	0.94	1.02	1.10	0.81	0.23	1.04
Mar. 16 - Mar. 29	0.92	1.01	1.08	0.89	0.31	1.20
Mar. 30 - Apr. 12	1.03	-	-	-	0.24	-
Apr. 13 - Apr. 26	0.97	1.10	1.08	0.91	0.16	1.07
Apr. 27 - May 10	1.03	1.07	1.08	0.81	0.18	1.99
May 11 - May 24	1.00	1.02	1.05	0.80	0.18	0.98
May 25 - June 7	1.05	-	-	-	0.18	-
June 8 - June 21	1.07	1.02	1.05	1.02	0.17	1.19
June 22 - July 5	1.08	1.03	1.07	0.96	0.18	1.14
July 6 - July 19	1.06	1.02	1.05	0.97	0.18	1.15
July 20 - Aug. 2	1.10	1.04	1.05	0.91	0.24	1.15
Aug. 3 - Aug. 16	1.09	1.11	1.09	1.13	0.18	1.31
Aug. 17 - Aug. 30	0.94	1.02	1.08	1.02	0.18	1.20
Aug. 31 - Sept. 13	1.08	1.04	1.06	1.02	0.17	1.19
Sept. 14 - Sept. 27	1.07	1.10	1.11	0.96	0.25	1.21
Sept. 28 - Oct. 11	1.08	1.17	1.15	0.98	0.16	1.14
Oct. 12 - Oct. 25	1.13	1.15	1.26	1.02	0.18	1.20
Oct. 26 - Nov. 8	1.15	1.14	1.14	1.13	0.19	1.32
Nov. 9 - Nov. 22	1.20	1.17	1.18	0.99	0.18	1.17
Nov. 23 - Dec. 6	1.17	1.16	1.16	1.04	0.18	1.22
Dec. 7 - Dec. 20	1.22	1.18	1.18	1.08	0.30	1.38
Dec. 21 - Jan. 3/86	1.25	1.19	1.19	1.05	0.19	1.24

Average	1.07	1.09	1.11	0.92	0.19	1.28
Range	0.92-1.25	1.01-1.19	1.05-1.26	0.83-1.13	0.16-0.31	0.98-2.05
% Outside Recommended Limits	0%					
No. of Samples	26	24	24	24	26	24

Manitoba

Health

File: 7.2.1

December 22, 1986

Mr. Erv Griffin
General Manager
Manitoba Water Services Board
P.O. Box 1059
Brandon, MB
R7A 6A2

Subject: 1985 FLUORIDE CONTROL DATA FOR McCREARY

The attached data summarizes the 1985 fluoride program for the Village of McCreary.

All the required 26 bi-weekly composite samples were submitted. All contained fluoride in concentration within the acceptable range. Note that the acceptable range was changed in August from 0.80 - 1.20 mg/l to 1.00 to 1.40 mg/l.

The fact that the three kinds of determinations (Technical Services Composite, Operator Composite and Theoretical Content) are all virtually identical, indicates excellent control by the operator Mr. Harper. A commendable job.

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officeer

JS/mb
attch.
c.c. Mr. Ivan Harper

FLUORIDATION CONTROL RECORD

LOCATION: MCCREARY

CHEMICAL: NaF 3%

TEST KIT: Hach Spectrophotometer

FLUORIDATOR : W&T A-588

OPERATOR: Ivan Harper

TELEPHONE: Office: 835-2341

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	1.00	1.02	1.01	0.82	0.24	1.06
Jan. 19 - Feb. 1	1.00	1.07	1.07	0.85	0.24	1.09
Feb. 2 - Feb. 15	1.04	0.98	1.00	0.81	0.24	1.05
Feb. 16 - Mar. 1	0.98	0.97	1.03	0.83	0.24	1.07
Mar. 2 - Mar. 15	1.01	1.05	1.06	0.72	0.24	0.96
Mar. 16 - Mar. 29	0.91	1.04	1.10	0.83	0.24	1.07
Mar. 30 - Apr. 12	1.07	0.98	1.08	0.72	0.24	0.96
Apr. 13 - Apr. 26	1.12	1.05	1.05	0.80	0.24	1.04
Apr. 27 - May 10	0.95	1.10	1.03	0.83	0.24	1.07
May 11 - May 24	1.01	1.06	1.04	0.76	0.24	1.00
May 25 - June 7	0.95	1.05	1.04	0.80	0.24	1.04
June 8 - June 21	0.97	1.03	1.04	0.76	0.24	1.00
June 22 - July 5	0.98	1.02	1.01	0.79	0.24	1.03
July 6 - July 19	1.11	1.08	1.04	0.85	0.24	1.09
July 20 - Aug. 2	1.05	1.02	1.03	0.79	0.24	1.03
Aug. 3 - Aug. 16	1.09	1.00	1.05	0.80	0.24	1.04
Aug. 17 - Aug. 30	1.07	1.05	1.09	0.85	0.24	1.09
Aug. 31 - Sept. 13	1.04	1.07	1.16	0.88	0.24	1.12
Sept. 14 - Sept. 27	1.22	1.25	1.14	0.95	0.24	1.19
Sept. 28 - Oct. 11	1.30	1.18	1.20	1.04	0.24	1.28
Oct. 12 - Oct. 25	1.14	1.15	1.17	0.93	0.24	1.17
Oct. 26 - Nov. 8	1.14	1.15	1.18	0.97	0.24	1.21
Nov. 9 - Nov. 22	1.14	1.21	1.20	0.95	0.24	1.19
Nov. 23 - Dec. 6	1.17	1.19	1.21	1.00	0.24	1.24
Dec. 7 - Dec. 20	1.15	1.19	1.20	0.95	0.24	1.19
Dec. 21 - Jan. 3/86	1.20	1.20	1.19	0.98	0.24	1.22

Average	1.07	1.08	1.09	0.86	0.24	1.10
Range	0.91-1.30	0.97-1.25	1.00-1.20	0.72-1.04		0.96-1.28
% Outside Recommended Limits	0%					
No. of Samples	26	26	26	26	26	26

Manitoba

Health

File: 7.2.1.

December 22, 1986

Mr. Erv Griffin
General Manager
Manitoba Water Services Board
P.O. Box 1059
Brandon, MB
R7A 6A2

Subject: 1985 FLUORIDE CONTROL DATA FOR PILOT MOUND

The attached data summarizes the 1985 fluoride program for the Village of Pilot Mound.

All of the required 26 bi-weekly samples were submitted. Of these, 3, or 12% contained fluoride in concentration outside the acceptable range of 0.8 to 1.2 mg/l.

This data reflects a very good job on the part of the operator Mr. Odlum. He is to be commended for his conscientious effort.

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/mb
attch.
c.c. Mr. Gary Odlum

FLUORIDATION CONTROL RECORD

LOCATION: PILOT MOUND

CHEMICAL: NaF 3%

TEST KIT: Hach Spectrophotometer

FLUORIDATOR : W&T A-588

OPERATOR: Gary Odlum

TELEPHONE: Plant: 825-2115

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	1.04	1.10	1.06	0.87	0.21	1.08
Jan. 19 - Feb. 1	1.06	1.06	1.06	0.83	0.21	1.04
Feb. 2 - Feb. 15	1.13	1.06	1.07	0.78	0.21	0.99
Feb. 16 - Mar. 1	1.03	1.05	1.06	0.79	0.21	1.00
Mar. 2 - Mar. 15	1.01	1.17	1.04	0.89	0.21	1.10
Mar. 16 - Mar. 29	0.87	1.03	1.07	0.87	0.21	1.08
Mar. 30 - Apr. 12	0.95	1.10	1.06	0.89	0.21	1.10
Apr. 13 - Apr. 26	0.78	1.00	1.01	0.89	0.21	1.10
Apr. 27 - May 10	0.83	1.02	0.95	0.83	0.21	1.04
May 11 - May 24	1.07	1.01	1.02	0.94	0.21	1.15
May 25 - June 7	1.10	0.93	1.01	0.87	0.21	1.08
June 8 - June 21	1.12	0.94	0.98	0.83	0.21	1.04
June 22 - July 5	1.40	0.92	0.97	0.89	0.21	1.10
July 6 - July 19	1.11	1.00	0.85	0.90	0.21	1.11
July 20 - Aug. 2	0.99	1.00	1.01	0.94	0.21	1.15
Aug. 3 - Aug. 16	1.10	1.00	1.02	0.90	0.21	1.11
Aug. 17 - Aug. 30	1.01	0.97	1.01	0.84	0.21	1.05
Aug. 31 - Sept. 13	1.05	0.99	1.01	0.85	0.21	1.06
Sept. 14 - Sept. 27	0.84	-	-	-	-	-
Sept. 28 - Oct. 11	0.94	1.10	1.06	0.86	0.21	1.07
Oct. 12 - Oct. 25	0.90	0.92	1.03	0.62	0.21	0.83
Oct. 26 - Nov. 8	0.90	1.00	1.01	0.91	0.21	1.11
Nov. 9 - Nov. 22	0.82	1.07	1.13	0.91	0.21	1.11
Nov. 23 - Dec. 6	0.77	1.09	1.11	0.91	0.21	1.11
Dec. 7 - Dec. 20	0.87	1.11	1.12	0.82	0.21	1.03
Dec. 21 - Jan. 3/86	0.80	1.18	1.16	0.97	0.21	1.18

Average	0.98	1.03	1.04	0.86	0.21	1.07
Range	0.77-1.40	0.92-1.18	0.85-1.16	0.62-0.97		0.83-1.18
% Outside Recommended Limits	12%					
No. of Samples	26	25	25	25	25	25

Manitoba

Health

File: 7.2.1.

December 22, 1986

Mr. Erv Griffin
General Manager
Manitoba Water Services Board
P.O. Box 1059
Brandon, MB
R7A 6A2

Subject: 1985 FLUORIDE CONTROL DATA FOR RESTON

The attached data summarizes the 1985 fluoride program for the Village of Reston.

All of the required 26 bi-weekly composite samples were submitted. All contained fluoride in concentrations within the acceptable range. Note that the acceptable range was changed from 0.80 - 1.20 to 1.00 - 1.40 in August 1985.

These results indicate that the Public Works Superintendent, Mr. Moore has done a very good job of maintaining the fluoride content in the water supply within the correct range.

Jim Senka

Jim Senka, B. Sc.
Fluoridation Officer

JS/mb
attch.
c.c. Mr. Ken Moore

FLUORIDATION CONTROL RECORD

LOCATION: RESTON

CHEMICAL: NaF 1.5% (1.43%)

TEST KIT: Hach Spectrophotometer

FLUORIDATOR : W&T A-745 Ser# LDP 102

OPERATOR: Ken Moore

TELEPHONE: Plant: 877-3862

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	0.95	1.00	1.00	1.04	0.13	1.17
Jan. 19 - Feb. 1	0.94	0.98	0.99	0.99	0.13	1.12
Feb. 2 - Feb. 15	0.98	0.98	0.99	1.05	0.13	1.18
Feb. 16 - Mar. 1	0.89	1.00	1.00	1.08	0.13	1.21
Mar. 2 - Mar. 15	1.10	-	-	-	-	-
Mar. 16 - Mar. 29	1.05	1.02	1.02	1.00	0.13	1.13
Mar. 30 - Apr. 12	1.11	1.05	1.02	1.01	0.13	1.14
Apr. 13 - Apr. 26	1.14	1.02	1.02	1.01	0.13	1.14
Apr. 27 - May 10	0.91	1.02	1.01	0.92	0.13	1.05
May 11 - May 24	0.92	1.02	1.00	1.01	0.13	1.14
May 25 - June 7	0.88	0.95	0.98	0.90	0.13	1.03
June 8 - June 21	0.99	0.92	0.97	0.91	0.13	1.04
June 22 - July 5	1.02	0.92	0.95	1.04	0.13	1.17
July 6 - July 19	1.06	1.00	1.00	0.82	0.13	0.95
July 20 - Aug. 2	1.10	1.05	1.03	0.75	0.13	0.88
Aug. 3 - Aug. 16	1.08	1.15	1.14	1.02	0.13	1.15
Aug. 17 - Aug. 30	0.82	1.08	1.06	0.97	0.13	1.10
Aug. 31 - Sept. 13	1.08	1.20	1.19	0.95	0.13	1.08
Sept. 14 - Sept. 27	1.12	1.18	1.19	0.96	0.13	1.09
Sept. 28 - Oct. 11	1.14	1.20	1.19	0.93	0.13	1.06
Oct. 12 - Oct. 25	1.03	1.25	1.21	0.93	0.13	1.06
Oct. 26 - Nov. 8	1.23	1.20	1.19	0.99	0.13	1.12
Nov. 9 - Nov. 22	1.10	1.25	1.21	0.98	0.13	1.11
Nov. 23 - Dec. 6	1.23	1.20	1.19	0.90	0.13	1.03
Dec. 7 - Dec. 20	1.08	1.15	1.18	1.03	0.13	1.16
Dec. 21 - Jan. 3/86	1.15	1.25	1.22	1.06	0.13	1.19

Average	1.04	1.08	1.08	0.97	0.13	1.10
Range	0.82-1.23	0.92-1.25	0.97-1.22	0.75-1.06		0.88-1.18
% Outside Recommended Limits	0%					
No. of Samples	26	25	25	25	25	25

Manitoba

Health

File: 7.2.1.

December 22, 1986

Mr. Erv Griffin
General Manager
Manitoba Water Services Board
P.O. Box 1059
Brandon, MB
R7A 6A2

Subject: 1985 FLUORIDE CONTROL DATA FOR ROSSBURN

The attached data summarizes the 1985 fluoride program for the Village of Rossburn.

23 out of the required 26 bi-weekly composite samples were submitted. Of these, 4, or 17% contained fluoride in concentrations outside the acceptable range of 0.80 to 1.20 mg/l.

This data indicates that the water plant operator, Mr. Joiner has done a good job in maintaining the fluoride content of the treated water within the correct range.

Jim Senka

Jim Senka, B. Sc.
Fluoridation Officer

JS/mb
attch.
c.c. Mr. Doug Joiner

FLUORIDATION CONTROL RECORD

LOCATION: ROSSBURN
CHEMICAL: NaF 1.5%
TEST KIT: Hach Spectrophotometer

FLUORIDATOR : W&T A-745
OPERATOR: Doug Joiner
TELEPHONE: Plant: 859-2273

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	1.07	0.94	0.96	0.81	0.10	0.91
Jan. 19 - Feb. 1	1.15	1.00	1.02	0.76	0.10	0.86
Feb. 2 - Feb. 15	0.87	1.00	1.01	0.69	0.10	0.79
Feb. 16 - Mar. 1	1.05	0.97	0.99	0.67	0.10	0.77
Mar. 2 - Mar. 15	1.23	0.99	0.99	0.62	0.10	0.72
Mar. 16 - Mar. 29	0.69	0.95	0.96	0.64	0.10	0.74
Mar. 30 - Apr. 12	1.07	1.00	1.01	0.61	0.10	0.71
Apr. 13 - Apr. 26	0.83	0.94	0.94	0.62	0.10	0.72
Apr. 27 - May 10	1.07	0.97	0.98	0.64	0.10	0.74
May 11 - May 24	0.85	0.97	0.99	0.62	0.10	0.72
May 25 - June 7	0.80	0.98	0.98	0.62	0.10	0.72
June 8 - June 21	0.90	0.98	0.98	0.59	0.10	0.69
June 22 - July 5	0.85	0.96	0.98	-	-	-
July 6 - July 19	0.83	0.97	0.98	0.70	0.10	0.80
July 20 - Aug. 2	0.93	0.94	0.97	0.59	0.10	0.69
Aug. 3 - Aug. 16	0.87	0.97	0.97	0.68	0.10	0.78
Aug. 17 - Aug. 30	-	-	-	-	-	-
Aug. 31 - Sept. 13	-	-	-	-	-	-
Sept. 14 - Sept. 27	1.18	0.96	0.98	(5.41)*	0.10	(5.51)*
Sept. 28 - Oct. 11	1.22	0.97	0.98	0.72	0.10	0.82
Oct. 12 - Oct. 25	1.14	0.98	0.98	0.67	0.10	0.77
Oct. 26 - Nov. 8	1.10	0.99	0.99	0.68	0.10	0.78
Nov. 9 - Nov. 22	1.10	0.97	0.98	0.77	0.10	0.87
Nov. 23 - Dec. 6	-	-	-	-	0.10	-
Dec. 7 - Dec. 20	1.17	0.96	0.97	0.69	0.10	0.79
Dec. 21 - Jan. 3/86	1.50	0.98	0.98	0.63	0.10	0.73

* Lower than normal water consumption reported - flow meter possibly not working.

Average	0.98	0.97	0.98	0.65	0.10	0.75
Range	0.83-1.50	0.94-1.00	0.94-1.02	0.59-0.81		0.53-0.91
% Outside Recommended Limits	17%					
No. of Samples	23	23	23	22	25	22

Manitoba

Health

File: 7.2.1.

December 22, 1986

Mr. Erv Griffin
General Manager
Manitoba Water Services Board
P.O. Box 1059
Brandon, MB
R7A 6A2

Subject: 1985 FLUORIDE CONTROL DATA FOR RUSSELL

The attached data summarizes the 1985 fluoride program for the Town of Russell.

25 of the required 26 bi-weekly composite samples were submitted. Of these, 2, or 8 percent contained fluoride in concentrations outside the acceptable range. Note that the acceptable range changed in August from 0.80 - 1.20 mg/l. to 1.00 - 1.40 mg/l.

The results indicate that the operator, Mr. Schrader has done a commendable job of maintaining the fluoride levels of the water within the correct range.

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/mb
attch.
c.c. Mr. Harold Schrader

FLUORIDATION CONTROL RECORD

LOCATION: RUSSELL

CHEMICAL: NaF 2%

TEST KIT: Hach Spectrophotometer

FLUORIDATOR : W&T A-747

OPERATOR: Harold Schrader

TELEPHONE: Plant: 773-3185

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	1.17	1.10	1.08	1.10	0.21	1.31
Jan. 19 - Feb. 1	0.99	1.10	1.06	1.29	0.21	1.50
Feb. 2 - Feb. 15	0.98	1.10	1.06	0.64	0.21	0.85
Feb. 16 - Mar. 1	-	1.10	1.04	0.86	0.21	1.07
Mar. 2 - Mar. 15	1.20	1.10	1.18	1.08	0.21	1.29
Mar. 16 - Mar. 29	1.01	1.20	1.09	1.03	0.21	1.24
Mar. 30 - Apr. 12	0.99	1.10	1.06	1.15	0.21	1.36
Apr. 13 - Apr. 26	1.00	1.00	1.02	1.25	0.21	1.46
Apr. 27 - May 10	0.99	1.00	1.03	1.08	0.21	1.29
May 11 - May 24	0.82	0.90	0.99	1.05	0.21	1.26
May 25 - June 7	0.84	1.00	1.01	0.99	0.21	1.20
June 8 - June 21	0.94	1.00	1.02	1.18	0.21	1.39
June 22 - July 5	1.10	1.10	1.08	1.21	0.21	1.42
July 6 - July 19	0.86	1.00	0.95	1.19	0.21	1.40
July 20 - Aug. 2	0.86	0.95	0.94	0.99	0.21	1.20
Aug. 3 - Aug. 16	1.03	0.80	0.96	1.29	0.21	1.50
Aug. 17 - Aug. 30	1.23	1.10	1.04	1.31	0.21	1.52
Aug. 31 - Sept. 13	1.27	1.10	1.13	1.31	0.21	1.52
Sept. 14 - Sept. 27	1.35	1.25	1.21	1.37	0.21	1.58
Sept. 28 - Oct. 11	1.30	1.20	1.17	1.32	0.21	1.53
Oct. 12 - Oct. 25	0.91	1.00	0.97	0.57	0.21	0.78
Oct. 26 - Nov. 8	0.31	0.75	0.72	0.21	0.21	0.42
Nov. 9 - Nov. 22	1.35	1.20	1.23	1.81	0.21	2.02
Nov. 23 - Dec. 6	1.15	1.15	1.27	1.79	0.21	2.00
Dec. 7 - Dec. 20	1.13	1.15	1,05	-	-	-
Dec. 21 - Jan. 3/86	1.08	1.10	1.10	-	-	-

Average	1.03	1.06	1.06	1.13	0.21	1.34
Range	0.31-1.35	0.75-1.20	0.72-1.27	0.21-1.81		0.42-2.02
% Outside Recommended Limits	8%					
No. of Samples	25	26	26	24	24	24

Manitoba

Health

File: 7.2.1.

December 22, 1986

Mr. Erv Griffin
General Manager
Manitoba Water Services Board
P.O. Box 1059
Brandon, Manitoba
R7A 6A2

Dear Sir:

Re: 1985 FLUORIDE CONTROL DATA FOR WINKLER

The attached data represents the 1985 fluoride program for the Town of Winkler.

All of the required 26 bi-weekly composite samples were submitted. All of these contained fluoride in concentrations within the acceptable range. Note that the acceptable range was changed from 0.80 - 1.20 to 1.00 - 1.40 in August, 1985.

The Plant operator Mr. Abe Dyck is to be congratulated for having done an excellent job of controlling the fluoride levels of the water within the correct range.

Yours truly,

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/lk
attch.
c.c. Mr. Abe Dyck

FLUORIDATION CONTROL RECORD

LOCATION: WINKLER

CHEMICAL: NaF 3%

TEST KIT: Hach Spectrophotometer

FLUORIDATOR : W&T A-747 (2 Feeders) Ser# GG15630

OPERATOR: Jake (Lou) Loewen

TELEPHONE: Plant: 325-8711 Home: 325-8000

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	1.00	1.09	1.04	0.56	0.26	0.82
Jan. 19 - Feb. 1	0.98	1.12	1.03	0.55	0.26	0.81
Feb. 2 - Feb. 15	1.00	1.08	1.04	0.55	0.26	0.81
Feb. 16 - Mar. 1	0.97	1.02	1.03	0.54	0.26	0.80
Mar. 2 - Mar. 15	0.98	1.10	1.04	0.56	0.26	0.82
Mar. 16 - Mar. 29	0.91	1.03	1.01	0.56	0.26	0.82
Mar. 30 - Apr. 12	0.95	1.02	1.00	0.56	0.26	0.82
Apr. 13 - Apr. 26	0.97	1.08	1.05	0.59	0.26	0.85
Apr. 27 - May 10	1.03	1.00	1.06	0.60	0.26	0.86
May 11 - May 24	1.00	1.10	1.05	0.60	0.26	0.86
May 25 - June 7	0.99	1.05	1.06	0.60	0.26	0.86
June 8 - June 21	0.97	1.00	1.07	0.60	0.26	0.86
June 22 - July 5	1.05	1.17	1.11	0.61	0.26	0.87
July 6 - July 19	1.06	1.17	1.12	0.61	0.26	0.87
July 20 - Aug. 2	1.04	1.05	1.10	0.63	0.26	0.89
Aug. 3 - Aug. 16	1.08	1.15	1.11	0.62	0.26	0.88
Aug. 17 - Aug. 30	1.12	1.16	1.18	0.66	0.26	0.92
Aug. 31 - Sept. 13	1.23	1.02	1.11	0.67	0.26	0.93
Sept. 14 - Sept. 27	1.25	1.10	1.07	0.74	0.26	1.00
Sept. 28 - Oct. 11	1.25	1.13	1.10	0.76	0.26	1.02
Oct. 12 - Oct. 25	1.23	1.09	1.08	0.73	0.26	0.99
Oct. 26 - Nov. 8	1.20	1.10	1.07	0.71	0.26	0.97
Nov. 9 - Nov. 22	1.15	1.11	1.04	0.62	0.26	0.88
Nov. 23 - Dec. 6	1.10	1.06	1.03	0.68	0.26	0.94
Dec. 7 - Dec. 20	1.17	1.04	0.69	1.08	0.26	1.34
Dec. 21 - Jan. 3/86	1.25	1.10	1.07	0.74	0.26	1.00

Average	1.07	1.08	1.05	0.64	0.26	0.90
Range	0.91 - 1.25	1.00 - 1.17	0.69 - 1.18	0.54 - 1.08	-	0.80 - 1.34
% Outside Recommended Limits	0%					
No. of Samples	26	26	26	26	26	26

APPENDIX "C"

YEAR END SUMMARIES FOR COMMUNITY-OWNED TREATMENT PLANTS

File: 7.2.1.

December 22, 1986

Mr. Gerald May
Secretary-Treasurer
Town of Boissevain
P.O. Box 490
Boissevain, MB
ROK OEO

Dear Sir:

Re: 1985 FLUORIDATION CONTROL DATA FOR BOISSEVAIN

The attached data summarizes the 1985 fluoride program for the Town of Boissevain.

19 of the required 26 bi-weekly composite samples were submitted. Of these, 4, or 21 percent contained fluoride in concentrations outside the acceptable range of 0.80 to 1.20 mg/l.

No samples were received from October 12 to December 6 because, due to the fluoride feed system being out of service, no fluoride was being added.

There have been some on-going problems with the fluoridation feed system, however Mr. Chinner, your Town Superintendent has been very conscientious and helpful in working with me to find solutions.

Yours truly,

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/mb
attch. Mr. Ed Anderson
Mr. Barry Chinner

FLUORIDATION CONTROL RECORD

LOCATION: BOISSEVAIN

CHEMICAL: NaF 2.3% Dry Feed

TEST KIT: Hach Filterphotometer

FLUORIDATOR : W&T A-747

OPERATOR: Barry Chinner

TELEPHONE: Town Off: 534-2433
Shop: 534-7980
Plant: 534-6762

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	1.22	0.95	0.98	2.15	0.20	2.35
Jan. 19 - Feb. 1	1.22	1.00	1.01	2.17	0.20	2.37
Feb. 2 - Feb. 15	1.18	1.00	0.93	2.00	0.20	2.20
Feb. 16 - Mar. 1	-	-	-	-	-	-
Mar. 2 - Mar. 15	1.18	0.90	0.89	1.29	0.20	1.49
Mar. 16 - Mar. 29	1.23	0.90	0.86	1.74	0.20	1.94
Mar. 30 - Apr. 12	1.37	1.00	1.08	2.35	0.20	2.55
Apr. 13 - Apr. 26	-	-	-	-	-	-
Apr. 27 - May 10	1.12	0.90	1.00	1.53	0.20	1.73
May 11 - May 24	-	-	-	-	-	-
May 25 - June 7	1.07	0.80	0.93	1.06	0.20	1.26
June 8 - June 21	1.20	0.90	0.92	1.66	0.20	1.86
June 22 - July 5	1.20	0.90	0.98	2.47	0.20	2.67
July 6 - July 19	1.02	0.70	0.79	2.20	0.20	2.40
July 20 - Aug. 2	1.20	1.15	0.83	1.76	0.20	1.96
Aug. 3 - Aug. 16	1.16	0.50	1.05	1.41	0.20	1.61
Aug. 17 - Aug. 30	0.80	0.30	0.47	1.80	0.20	2.00
Aug. 31 - Sept. 13	0.94	-	0.53	1.75	0.20	1.95
Sept. 14 - Sept. 27	1.12	-	-	1.51	0.20	1.71
Sept. 28 - Oct. 11	1.08	1.20	1.22	1.00	0.20	1.20
Oct. 12 - Oct. 25	-	-	-	-	-	-
Oct. 26 - Nov. 8	-	-	-	-	-	-
Nov. 9 - Nov. 22	-	-	-	-	-	-
Nov. 23 - Dec. 6	-	-	-	-	-	-
Dec. 7 - Dec. 20	0.84	0.95	0.90	1.22	0.20	1.42
Dec. 21 - Jan. 3/86	0.80	0.80	1.08	1.41	0.20	1.61

Average	1.10	0.87	0.91	1.71	0.20	1.91
Range	0.80 - 1.37	0.30 - 1.15	0.53 - 1.22	1.00 - 2.47		1.70 - 2.67
% Outside Recommended Limits	21%					
No. of Samples	19	17	18	19		19

File: 7.2.1.

December 22, 1986

Mr. Ian Ford
Brandon City Clerk
P.O. Box 960
Brandon, MB
R7A 6A2

Dear Sir:

Re: 1985 FLUORIDATION CONTROL DATA FOR BRANDON

The attached data summarizes the 1985 fluoride program for the City of Brandon.

25 of the required 26 bi-weekly composite samples were submitted. Of these, all but one contained fluoride in concentrations within the acceptable range. Note that the acceptable range was changed from 0.80 - 1.20 to 1.00 - 1.40 in August, 1985.

The waterworks supervisor, Mr. Gerling is to be commended for doing an excellent job of controlling the fluoride levels for the city of Brandon.

Yours truly,

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/mb
attch.
c.c. Mr. Herb Gerling

FLUORIDATION CONTROL RECORD

LOCATION: BRANDON

CHEMICAL: Na2Sif6 (Dry)

TEST KIT: Hach Spectrophotometer

FLUORIDATOR : W&T A-690

OPERATOR: Herb Gerling

TELEPHONE: Plant: 728-7424

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	0.99	1.02	1.02	0.77	0.20	0.97
Jan. 19 - Feb. 1	0.94	1.00	0.91	0.74	0.20	0.94
Feb. 2 - Feb. 15	0.97	1.01	1.00	0.84	0.20	1.04
Feb. 16 - Mar. 1	1.08	1.04	1.04	0.89	0.20	1.09
Mar. 2 - Mar. 15	0.95	0.95	0.98	0.83	0.20	1.03
Mar. 16 - Mar. 29	0.91	1.08	0.93	0.71	0.20	0.91
Mar. 30 - Apr. 12	1.09	1.20	0.99	0.76	0.20	0.96
Apr. 13 - Apr. 26	1.03	1.05	1.07	1.01	0.20	1.21
Apr. 27 - May 10	0.94	1.10	1.01	0.88	0.20	1.08
May 11 - May 24	0.88	1.03	0.97	0.85	0.20	1.05
May 25 - June 7	0.88	0.95	1.01	0.85	0.20	1.05
June 8 - June 21	-	-	-	-	0.20	-
June 22 - July 5	0.98	0.95	1.00	0.92	0.20	1.12
July 6 - July 19	0.98	0.96	1.04	0.96	0.20	1.16
July 20 - Aug. 2	0.87	0.92	1.01	0.80	0.20	1.00
Aug. 3 - Aug. 16	1.03	0.98	0.95	0.61	0.20	0.81
Aug. 17 - Aug. 30	1.08	1.00	1.13	1.07	0.20	1.27
Aug. 31 - Sept. 13	1.22	1.12	1.16	1.12	0.20	1.32
Sept. 14 - Sept. 27	0.94	0.85	1.15	1.02	0.20	1.22
Sept. 28 - Oct. 11	1.35	1.23	1.24	1.25	0.20	1.45
Oct. 12 - Oct. 25	1.30	1.24	1.22	1.21	0.20	1.41
Oct. 26 - Nov. 8	1.26	-	1.26	1.20	0.20	1.40
Nov. 9 - Nov. 22	1.37	1.35	1.22	1.23	0.20	1.43
Nov. 23 - Dec. 6	1.28	1.25	1.21	1.50	0.20	1.70
Dec. 7 - Dec. 20	1.33	1.24	1.21	1.07	0.20	1.27
Dec. 21 - Jan. 3/86	1.25	1.23	1.17	1.07	0.20	1.27

Average	1.08	1.07	1.08	0.97	0.20	1.17
Range	0.87 - 1.37	0.85 - 1.35	0.91 - 1.26	0.61 - 1.50		0.81 - 1.70
% Outside Recommended Limits	4.0%					
No. of Samples	25	24	25	25		25

File: 7.2.1.

December 22, 1986

Mr. Bruce Lyle
Secretary-Treasurer
Town of Carman
P.O. Box 160
Carman, MB
ROG 0J0

Dear Sir:

Re: 1985 FLUORIDATION CONTROL DATA FOR CARMAN

The attached data summarizes the 1985 fluoride program for the Town of Carman.

23 of the required 26 bi-weekly composite samples were submitted. Of these, 1, or 4 percent contained fluoride in concentration outside the acceptable range of 0.80 to 1.20 mg/l.

The water treatment plant supervisor, Mr. Bell should be commended for doing an excellent job of controlling the fluoride levels within the correct range.

Yours truly,

Jim Senka

Jim Senka, B.Sc
Fluoridation Officer

JS/mb
attch.
c.c. Mr. Dennis Bell

FLUORIDATION CONTROL RECORD

LOCATION: CARMAN

CHEMICAL: NaF 1.8%

TEST KIT: Hach Spectrophotometer

FLUORIDATOR : W&T A-748 Ser#KK16902

OPERATOR: Dennis Bell

TELEPHONE: Plant: 745-2481

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	0.80	0.80	0.98	0.67	0.21	0.88
Jan. 19 - Feb. 1	1.03	1.20	1.05	0.90	0.21	1.11
Feb. 2 - Feb. 15	1.02	1.20	1.17	0.65	0.21	0.86
Feb. 16 - Mar. 1	0.84	1.20	1.09	0.70	0.21	0.91
Mar. 2 - Mar. 15	-	1.00	1.01	0.72	0.21	0.93
Mar. 16 - Mar. 29	0.87	0.85	0.92	0.73	0.21	0.94
Mar. 30 - Apr. 12	0.99	0.80	0.98	0.93	0.21	1.14
Apr. 13 - Apr. 26	0.97	1.05	1.03	0.89	0.21	1.10
Apr. 27 - May 10	1.08	1.05	1.04	1.19	0.21	1.40
May 11 - May 24	0.96	0.90	1.06	1.20	0.21	1.41
May 25 - June 7	1.15	0.90	1.06	1.27	0.21	1.48
June 8 - June 21	1.13	1.20	1.18	1.11	0.21	1.32
June 22 - July 5	1.05	1.30	1.06	1.53	0.21	1.74
July 6 - July 19	1.02	0.95	1.09	1.10	0.21	1.31
July 20 - Aug. 2	1.01	1.05	1.03	1.31	0.21	1.52
Aug. 3 - Aug. 16	0.87	0.95	1.04	0.99	0.21	1.20
Aug. 17 - Aug. 30	0.79	0.95	0.99	1.22	0.21	1.42
Aug. 31 - Sept. 13	-	-	1.18	1.25	0.21	1.46
Sept. 14 - Sept. 27	0.87	1.05	0.96	1.04	0.21	1.25
Sept. 28 - Oct. 11	0.91	1.05	1.12	1.13	0.21	1.34
Oct. 12 - Oct. 25	0.95	1.15	1.08	0.99	0.21	1.20
Oct. 26 - Nov. 8	0.85	0.80	0.94	0.88	0.21	1.09
Nov. 9 - Nov. 22	0.87	1.00	0.98	1.20	0.21	1.41
Nov. 23 - Dec. 6	-	1.05	1.09	1.12	0.21	1.33
Dec. 7 - Dec. 20	1.04	1.10	1.09	1.02	0.21	1.23
Dec. 21 - Jan. 3/86	0.93	1.10	1.11	1.03	0.21	1.24

Average	0.96	0.99	1.05	1.03	0.21	1.24
Range	0.79 - 1.15	0.80 - 1.20	0.92 - 1.18	0.65 - 1.31		0.86 - 1.52
% Outside Recommended Limits	4 %					
No. of Samples	23	25	26	26		26

File: 7.2.1.

December 22, 1986

Mr. Alex Dmitruk
Secretary/Treasurer
Town of Dauphin
21-2nd Avenue, N.W.
Dauphin, MB
R7N 1H1

Dear Sir:

Re: 1985 FLUORIDATION CONTROL DATA FOR DAUPHIN

The attached data summarizes the 1985 fluoride program for the Town of Dauphin.

25 of the required 26 bi-weekly composite samples were submitted. Of these, 12, or 46% contained fluoride in concentrations below the acceptable range of 0.80 to 1.20 mg/l.

This data reflects an on-going problem with the fluoride feed system - i.e. scaling and binding of the feed pump by the sodium fluoride slurry. Although this problem continued into 1986, your town engineer Mr. Storozinski has made plans to purchase a liquid feed system which should solve the problem when in place and operating.

Your waterworks superintendent Mr. Mayuk has, under the circumstances, been doing a good job keeping the equipment running.

Yours truly,

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/mb
attch.
c.c. Mr. Ray Storozinski
Mr. Eugene Mayuk

FLUORIDATION CONTROL RECORD

LOCATION: DAUPHIN

CHEMICAL: NaF (Slurry) 44%

TEST KIT: Hach Spectrophotometer

FLUORIDATOR : W&T A-690

OPERATOR: Eugene Mayuk-Town Supt.

TELEPHONE: Ray Storizinski-Town Eng.
Office: 638-3601

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	0.78	-	-	-	0.12	-
Jan. 19 - Feb. 1	0.78	-	0.93	0.65	0.12	0.77
Feb. 2 - Feb. 15	0.87	0.95	0.96	0.55	0.11	0.66
Feb. 16 - Mar. 1	1.03	1.00	0.98	0.60	0.11	0.71
Mar. 2 - Mar. 15	0.74	0.80	1.06	0.43	0.12	0.55
Mar. 16 - Mar. 29	0.85	0.90	0.90	0.44	0.16	0.60
Mar. 30 - Apr. 12	0.95	0.95	1.00	0.60	0.12	0.72
Apr. 13 - Apr. 26	-	-	-	-	0.16	-
Apr. 27 - May 10	0.84	1.00	1.00	0.65	0.16	0.81
May 11 - May 24	1.00	1.10	1.06	0.66	0.18	0.84
May 25 - June 7	1.00	0.75	0.90	0.64	0.19	0.83
June 8 - June 21	0.90	1.00	0.96	0.73	0.12	0.85
June 22 - July 5	0.85	1.05	1.03	0.70	0.21	0.91
July 6 - July 19	0.86	1.00	1.04	0.61	0.15	0.76
July 20 - Aug. 2	0.76	0.95	0.97	0.55	0.16	0.71
Aug. 3 - Aug. 16	0.64	0.85	0.92	0.55	0.14	0.69
Aug. 17 - Aug. 30	0.80	0.95	1.06	0.85	0.14	0.99
Aug. 31 - Sept. 13	0.72	0.95	1.02	0.77	0.19	0.96
Sept. 14 - Sept. 27	0.83	1.05	1.00	0.66	0.14	0.80
Sept. 28 - Oct. 11	0.58	0.90	0.91	1.08	0.16	1.24
Oct. 12 - Oct. 25	0.57	0.95	0.90	1.03	0.16	1.19
Oct. 26 - Nov. 8	0.69	0.85	0.96	1.01	0.14	1.15
Nov. 9 - Nov. 22	0.71	0.80	0.80	0.94	0.14	1.08
Nov. 23 - Dec. 6	0.82	0.95	1.02	0.50	0.13	0.63
Dec. 7 - Dec. 20	0.66	0.90	0.90	0.81	0.12	0.93
Dec. 21 - Jan. 3/86	0.76	0.95	1.00	0.91	0.14	1.05

Average	0.80	0.94	0.97	0.71	0.15	0.85
Range	0.57 - 1.03	0.75 - 1.05	0.80 - 1.04	0.43 - 1.08	0.11 - 0.21	0.55 - 1.24
% Outside Recommended Limits	46.0 %					
No. of Samples	25	24	24	24	26	24

File: 7.2.1.

December 22, 1986

Mr. Gary Nanna
Resident Administrator
P.O. Box 100
Gillam, MB
ROB OLO

Dear Sir:

Re: 1985 FLUORIDATION CONTROL DATA FOR GILLAM

The attached data summarizes the 1985 fluoride control program for Gillam.

Only 6 of the 26 bi-weekly composite samples were submitted. Of these, 4, or 67% contained fluoride in concencentrations outside the acceptable limits.

Regarding the missing samples, no fluoride was being fed during those periods due to equipment malfunctions, thus no sample was required.

I have been in contact with your operator Mr. Gaider and feel that he will be able to solve these equipment problems.

Yours truly,

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/mb
attch.
c.c. Mr. Rudy Gaider

FLUORIDATION CONTROL RECORD

LOCATION: GILLAM

CHEMICAL: 4% NaF

TEST KIT: Hach Spectrophotometer

FLUORIDATOR :

OPERATOR: Rudy Gaider

TELEPHONE: Shop: 652-2629 Plant: 652-2377

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	-	-	-	-		
Jan. 19 - Feb. 1	-	-	-	-		
Feb. 2 - Feb. 15	-	-	-	-		
Feb. 16 - Mar. 1	-	-	-	-		
Mar. 2 - Mar. 15	-	-	-	-		
Mar. 16 - Mar. 29	-	-	-	-		
Mar. 30 - Apr. 12	-	-	-	-		
Apr. 13 - Apr. 26	-	-	-	-		
Apr. 27 - May 10	-	-	-	-		
May 11 - May 24	-	-	-	-		
May 25 - June 7	-	-	-	-		
June 8 - June 21	-	-	-	-		
June 22 - July 5	-	-	-	-		
July 6 - July 19	1.47	-	1.24	0.82		
July 20 - Aug. 2	1.25	1.05	1.06	1.92		
Aug. 3 - Aug. 16	1.27	-	1.23	0.51		
Aug. 17 - Aug. 30	1.20	-	1.21	1.36		
Aug. 31 - Sept. 13	1.28	-	1.21	1.67		
Sept. 14 - Sept. 27	-	-	-	-		
Sept. 28 - Oct. 11	-	-	-	-		
Oct. 12 - Oct. 25	-	-	-	-		
Oct. 26 - Nov. 8	-	-	-	-		
Nov. 9 - Nov. 22	-	-	-	-		
Nov. 23 - Dec. 6	1.00	-	-	-		
Dec. 7 - Dec. 20	-	-	1.21	0.78		
Dec. 21 - Jan. 3/86	-	-	1.19	0.49		

Average	1.25		1.19	1.08		
Range	1.00 - 1.47		1.06 - 1.24	0.49 - 1.92		
% Outside Recommended Limits	67%					
No. of Samples	6		7	7		

File: 7.2.1.

December 22, 1986

Mrs. Doris Lloydd
Secretary-Treasurer
Town of Gimli
P.O. Box 88
Gimli, MB
ROC 1B0

Dear Madame:

Re: 1985 FLUORIDATION CONTROL DATA FOR GIMLI

The attached data summarizes the 1985 fluoride program for the Town of Gimli.

25 of the required 26 bi-weekly composite samples were submitted. All of these contained fluoride in concentrations within the acceptable range of 0.80 to 1.20 mg/l.

Your treatment plant operator, Mr. Markusson is to be commended for having done an excellent job in maintaining the fluoride content of the treated water within the correct range.

Yours truly,

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/mb
attch.
c.c. Mr. Albert Markusson

FLUORIDATION CONTROL RECORD

LOCATION: GIMLI (TOWN) FLUORIDATOR : W&T A-745

CHEMICAL: NaF 3% OPERATOR: Albert Markusson

TEST KIT: Hach PH/Fluoride Meter (Probe) TELEPHONE: Plant: 642-7443 Off: 642-5210

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	1.04	1.05	1.04	0.76	0.45	1.21
Jan. 19 - Feb. 1	-	-	-	-	0.45	-
Feb. 2 - Feb. 15	1.00	1.00	1.00	0.64	0.45	1.09
Feb. 16 - Mar. 1	0.95	-	-	0.64	0.45	1.09
Mar. 2 - Mar. 15	0.83	-	-	0.49	0.45	0.94
Mar. 16 - Mar. 29	0.84	0.90	0.93	0.59	0.45	1.04
Mar. 30 - Apr. 12	0.90	1.00	1.00	0.68	0.45	1.13
Apr. 13 - Apr. 26	1.00	-	-	0.52	0.45	0.97
Apr. 27 - May 10	1.07	1.00	0.99	0.50	0.45	0.95
May 11 - May 24	0.91	1.05	1.03	0.48	0.45	0.93
May 25 - June 7	1.00	1.00	1.00	0.58	0.45	1.03
June 8 - June 21	0.96	1.00	1.00	0.55	0.45	1.00
June 22 - July 5	0.96	1.06	1.01	0.56	0.45	1.01
July 6 - July 19	0.98	0.95	0.97	0.45	0.45	0.90
July 20 - Aug. 2	1.00	1.00	1.00	0.55	0.45	1.00
Aug. 3 - Aug. 16	1.04	1.00	1.00	0.55	0.45	1.00
Aug. 17 - Aug. 30	1.08	1.10	1.10	0.61	0.45	1.06
Aug. 31 - Sept. 13	1.17	1.10	1.10	0.62	0.45	1.07
Sept. 14 - Sept. 27	1.05	1.10	1.10	0.55	0.45	1.00
Sept. 28 - Oct. 11	0.95	1.00	1.00	0.56	0.45	1.01
Oct. 12 - Oct. 25	1.00	1.05	1.00	0.47	0.45	0.92
Oct. 26 - Nov. 8	1.14	1.10	1.10	0.70	0.45	1.15
Nov. 9 - Nov. 22	1.12	1.10	1.10	0.65	0.45	1.10
Nov. 23 - Dec. 6	1.07	1.15	1.15	0.72	0.45	1.17
Dec. 7 - Dec. 20	0.90	0.95	0.96	0.61	0.45	1.06
Dec. 21 - Jan. 3/86	1.10	1.05	1.04	0.50	0.45	0.95

Average	1.00	1.03	1.03	0.58		1.03
Range	0.83 - 1.17	0.90 - 1.15	0.93 - 1.15	0.47 - 0.76		0.92 - 1.21
% Outside Recommended Limits	0%					
No. of Samples	25	22	22	25		25

File: 7.2.1.

December 22, 1986

Mrs. Helen Tefs
Secretary-Treasurer
Town of Gladstone
P.O. Box 25
Gladstone, MB
ROJ OTO

Dear Madame:

Re: 1985 FLUORIDATION CONTROL DATA FOR GLADSTONE

The attached data summarizes the 1985 fluoride program for the Town of Gladstone.

All of the required 26 bi-weekly composite samples were submitted. Of these, 1, or 4 percent contained fluoride in concentrations outside the acceptable range. Note that the acceptable range was changed from 0.80 - 1.20 to 1.00 to 1.40 in August 1985.

Your treatment plant operator, Mr. Waldner is to be commended for having done an excellent job in maintaining the fluoride content of the water within the correct range.

Yours truly,

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/mb
attch.
c.c. Mr. John Waldner
Mr. Lorne Kennedy

FLUORIDATION CONTROL RECORD

LOCATION: GLADSTONE

CHEMICAL: NaF 4%

TEST KIT: Hach Spectrophotometer

FLUORIDATOR : W&T A-745 Ser# LDP3692

OPERATOR: Lorne Kennedy John Waldner

TELEPHONE: Plant: 385-2017

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	0.91	0.97	0.92	0.94	0.22	1.16
Jan. 19 - Feb. 1	0.87	1.05	0.92	1.04	0.22	1.24
Feb. 2 - Feb. 15	1.03	0.96	0.95	0.76	0.22	0.98
Feb. 16 - Mar. 1	0.98	1.07	0.94	0.77	0.22	0.99
Mar. 2 - Mar. 15	0.98	1.04	0.96	0.78	0.22	1.00
Mar. 16 - Mar. 29	0.97	1.04	0.89	0.79	0.22	1.01
Mar. 30 - Apr. 12	1.11	1.10	0.98	1.21	0.22	1.43
Apr. 13 - Apr. 26	1.10	1.01	0.94	1.52	0.22	1.74
Apr. 27 - May 10	0.98	1.04	0.93	0.84	0.22	1.06
May 11 - May 24	0.97	1.06	0.98	0.72	0.22	0.94
May 25 - June 7	1.04	0.95	0.92	0.70	0.22	0.92
June 8 - June 21	0.99	1.05	0.95	0.54	0.22	0.76
June 22 - July 5	0.87	-	-	-	0.22	-
July 6 - July 19	0.82	1.06	0.87	0.59	0.22	0.81
July 20 - Aug. 2	0.89	0.96	0.91	0.64	0.22	0.86
Aug. 3 - Aug. 16	1.00	-	0.91	0.65	0.22	0.87
Aug. 17 - Aug. 30	1.07	0.97	0.93	0.87	0.22	1.09
Aug. 31 - Sept. 13	1.10	1.00	0.89	0.75	0.22	0.97
Sept. 14 - Sept. 27	1.00	1.02	0.99	0.78	0.22	1.00
Sept. 28 - Oct. 11	1.14	1.07	0.91	0.80	0.22	1.02
Oct. 12 - Oct. 25	1.14	0.98	0.89	0.93	0.22	1.15
Oct. 26 - Nov. 8	1.19	1.50	0.89	1.29	0.22	1.51
Nov. 9 - Nov. 22	1.20	0.40	0.89	0.16	0.22	0.38
Nov. 23 - Dec. 6	0.99	0.95	0.88	0.96	0.22	1.18
Dec. 7 - Dec. 20	1.26	1.10	0.94	0.65	0.22	0.87
Dec. 21 - Jan. 3/86	1.28	1.10	0.93	0.78	0.22	1.00

Average	1.03	1.02	0.92	0.82		1.04
Range	0.82 - 1.28	0.40 - 1.50	0.87 - 0.99	0.16 - 1.52		0.28 - 1.74
% Outside Recommended Limits	4%					
No. of Samples	26	24	25	25		

File: 7.2.1.

December 22, 1986

Eleanor Gloor
Secretary Treasurer
Town of Hartney
P.O. Box 337
Hartney, MB
ROM OXO

Dear Madame:

Re: 1985 FLUORIDATION CONTROL DATA FOR HARTNEY

The attached data summarizes the 1985 fluoride program for the Town of Hartney.

24 of the required 26 bi-weekly composite samples were submitted. Of these, 5, or 21 percent contained fluoride in concentrations outside the acceptable range. Note that the acceptable range was changed from 0.80 - 1.20 to 1.00 - 1.40 in August, 1985.

Your water treatment plant operator, Mr. Mycasiw reports that two of the out-of-range readings (Jan) occurred when there was a mechanical problem with the feed system, and two other out-of-range readings (Sept) were caused by a batch of fluoride from the suppliers that did not dissolve properly.

Yours truly,

Jim Senka

Jim Senka, B. Sc.
Fluoridation Officer

JS/mb
attch.
c.c. Mr. Bill Mycasiw

FLUORIDATION CONTROL RECORD

LOCATION: HARTNEY

CHEMICAL: NaF 1%

TEST KIT: Hach Spectrophotometer

FLUORIDATOR : W&T A-745

OPERATOR: Bill Mychasiw

TELEPHONE: Shop: 858-2076 Off: 858-2429

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	1.27	1.05	1.08	1.64	0.20	1.84
Jan. 19 - Feb. 1	1.28	1.20	1.16	1.32	0.20	1.52
Feb. 2 - Feb. 15	1.07	1.08	1.07	1.13	0.20	1.33
Feb. 16 - Mar. 1	-	1.00	1.00	0.83	0.20	1.03
Mar. 2 - Mar. 15	0.88	1.04	1.03	0.95	0.20	1.15
Mar. 16 - Mar. 29	0.87	1.00	1.04	1.12	0.20	1.32
Mar. 30 - Apr. 12	0.93	1.00	0.99	-	0.20	-
Apr. 13 - Apr. 26	0.90	1.00	1.01	0.93	0.20	1.13
Apr. 27 - May 10	1.10	1.00	1.00	1.12	0.20	1.32
May 11 - May 24	1.00	1.05	1.05	0.90	0.20	1.10
May 25 - June 7	1.05	1.10	1.10	1.11	0.20	1.31
June 8 - June 21	1.03	0.98	1.02	1.09	0.20	1.29
June 22 - July 5	0.93	0.98	0.99	1.01	0.20	1.21
July 6 - July 19	0.98	1.02	1.00	0.91	0.20	1.11
July 20 - Aug. 2	-	-	0.97	-	0.20	-
Aug. 3 - Aug. 16	1.16	1.08	1.07	1.45	0.20	1.65
Aug. 17 - Aug. 30	1.08	1.08	1.09	0.93	0.20	1.13
Aug. 31 - Sept. 13	1.12	1.10	1.10	1.13	0.20	1.33
Sept. 14 - Sept. 27	0.85	1.00	1.04	0.79	0.20	0.99
Sept. 28 - Oct. 11	0.92	0.98	1.03	1.08	0.20	1.28
Oct. 12 - Oct. 25	1.14	1.20	1.15	1.37	0.20	1.57
Oct. 26 - Nov. 8	1.20	1.18	1.19	1.29	0.20	1.49
Nov. 9 - Nov. 22	1.05	1.02	1.08	1.04	0.20	1.24
Nov. 23 - Dec. 6	1.45	1.08	1.14	1.34	0.20	1.54
Dec. 7 - Dec. 20	1.25	1.20	1.20	1.11	0.20	1.31
Dec. 21 - Jan. 3/86	1.20	1.22	1.21	0.75	0.20	0.95

Average	1.07	1.07	1.07	1.10		1.30
Range	0.85 - 1.45	0.98 - 1.22	0.97 - 1.21	0.75 - 1.64		0.99 - 1.84
% Outside Recommended Limits	21%					
No. of Samples	24	25	26	24	26	24

File: 7.2.1.

December 22, 1986

Mr. Dennis Higginson
Assistant Secretary Treasurer
Town of Killarney
P.O. Box 10
Killarney, MB
ROK 1GO

Dear Sir:

Re: 1985 FLUORIDATION CONTROL DATA FOR KILLARNEY

The attached data summarizes the 1985 fluoride program for the Town of Killarney.

25 of the required 26 bi-weekly composite samples were submitted. Of these, 12, or 48 percent contained fluoride in concentrations outside the acceptable range. Note that the acceptable range was changed from 0.80 -1.20 to 1.00 - 1.40 in August, 1985.

Through the co-operation of your water treatment plant operator, Mr. Parker, we have discovered that adding fluoride solution to the reservoir whenever the high lift pumps are transferring this water to the water tower does not provide adequate mixing of the fluoride and treated water. A change was made in 1986 so that the fluoride solution is injected directly into the line. Fluoride concentration in the water has been more consistent since this change was implemented.

A second problem has been the fluoride test kit which is overly-sensitive. There will be a test kit available for loan from our department early in 1987 should you wish to repair or replace your existing kit.

Mr. Parker has been very co-operative in helping us to solve the above problems.

Yours truly,

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/mb
attch.
c.c. Mr. Carl Parker

FLUORIDATION CONTROL RECORD

LOCATION: KILLARNEY

CHEMICAL: NaF 4%

TEST KIT: Hach Spectrophotometer

FLUORIDATOR : W&T MODEL A-747

OPERATOR: Carl Parker

TELEPHONE: Plant: 523-8944

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	1.37	1.00	1.21	-	0.19	-
Jan. 19 - Feb. 1	0.65	0.85	1.04	1.57	0.19	1.76
Feb. 2 - Feb. 15	0.75	1.00	0.83	-	0.19	-
Feb. 16 - Mar. 1	1.18	1.00	1.10	1.72	0.19	1.91
Mar. 2 - Mar. 15	1.18	1.30	1.06	1.26	0.19	1.45
Mar. 16 - Mar. 29	1.08	1.10	1.04	1.48	0.19	1.67
Mar. 30 - Apr. 12	1.37	1.00	1.14	1.52	0.19	1.71
Apr. 13 - Apr. 26	1.42	2.50	1.15	2.07	0.19	2.26
Apr. 27 - May 10	1.13	1.20	1.03	1.27	0.19	1.46
May 11 - May 24	1.09	1.10	1.08	1.74	0.19	1.93
May 25 - June 7	1.35	1.25	1.18	1.25	0.19	1.44
June 8 - June 21	1.25	1.10	1.08	1.29	0.19	1.48
June 22 - July 5	-	1.00	0.98	1.67	0.19	1.86
July 6 - July 19	0.95	1.20	1.06	1.22	0.19	1.41
July 20 - Aug. 2	1.18	1.20	1.10	1.42	0.19	1.61
Aug. 3 - Aug. 16	1.03	1.00	1.07	-	0.19	-
Aug. 17 - Aug. 30	1.50	1.25	1.40	-	0.19	-
Aug. 31 - Sept. 13	1.07	1.00	1.02	-	0.19	-
Sept. 14 - Sept. 27	1.50	1.15	1.15	-	0.19	-
Sept. 28 - Oct. 11	1.38	-	1.13	1.61	0.19	1.80
Oct. 12 - Oct. 25	1.09	1.00	0.84	1.54	0.19	1.73
Oct. 26 - Nov. 8	1.54	1.30	1.08	1.91	0.19	2.10
Nov. 9 - Nov. 22	1.30	1.20	1.02	1.64	0.19	1.83
Nov. 23 - Dec. 6	1.50	1.20	1.10	1.78	0.19	1.97
Dec. 7 - Dec. 20	0.65	0.80	0.86	1.08	0.19	1.27
Dec. 21 - Jan. 3/86	1.30	1.20	1.02	2.10	0.19	2.29

Average	1.19	1.16	1.07	1.56		1.75
Range	0.65 - 1.54	0.80 - 2.50	0.83 - 1.40	1.08 - 2.10		1.27 - 2.29
% Outside Recommended Limits	48%					
No. of Samples	25	25	26	20		20

File: 7.2.1.

December 22, 1986

Mr. Richard C. Locke
Secretary Treasurer
Village of MacGregor
P.O. Box 190
MacGregor, MB
ROH ORO

Dear Sir:

Re: 1985 FLUORIDATION CONTROL DATA FOR MACGREGOR

The attached data summarizes the 1985 fluoride program for the Village of MacGregor.

All of the required 26 bi-weekly samples were submitted. All of these samples contained fluoride in concentrations within the acceptable range. Note that the acceptable range was changed from 0.80 - 1.20 to 1.00 - 1.40 in August, 1985.

This data reflects an excellent job by the plant operator Mr. Telford. He is to be commended for maintaining the fluoride content of the treated water within the correct range throughout the entire year.

Yours truly,

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/mb
attch.
c.c. Mr. Brian Telford

FLUORIDATION CONTROL RECORD

LOCATION: MACGREGOR

CHEMICAL: NaF 3%

TEST KIT: Hach DR/3 Spectrophotometer

FLUORIDATOR : W6T A-745

OPERATOR: Brian Telford

TELEPHONE: Office: 685-2211

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	1.04	1.08	1.00	0.81	0.19	1.00
Jan. 19 - Feb. 1	0.88	0.96	0.99	0.79	0.19	0.98
Feb. 2 - Feb. 15	0.95	1.01	1.04	0.78	0.19	0.97
Feb. 16 - Mar. 1	1.04	1.08	1.06	0.75	0.19	0.94
Mar. 2 - Mar. 15	0.95	1.04	0.99	0.75	0.19	0.94
Mar. 16 - Mar. 29	0.91	1.00	1.01	0.76	0.19	0.95
Mar. 30 - Apr. 12	1.03	1.03	1.03	0.79	0.19	0.98
Apr. 13 - Apr. 26	1.00	1.06	1.04	0.78	0.19	0.97
Apr. 27 - May 10	1.03	1.06	1.05	0.75	0.19	0.94
May 11 - May 24	0.91	1.08	1.03	0.76	0.19	0.95
May 25 - June 7	1.00	1.00	1.01	0.76	0.19	0.95
June 8 - June 21	1.00	1.10	1.01	0.79	0.19	0.98
June 22 - July 5	1.10	1.00	1.07	0.89	0.19	1.08
July 6 - July 19	1.06	1.00	0.96	0.74	0.19	0.93
July 20 - Aug. 2	1.00	1.05	1.02	0.76	0.19	0.95
Aug. 3 - Aug. 16	1.12	1.05	1.09	0.76	0.19	0.95
Aug. 17 - Aug. 30	0.91	1.18	1.17	0.94	0.19	1.13
Aug. 31 - Sept. 13	1.17	1.05	1.14	0.82	0.19	1.01
Sept. 14 - Sept. 27	1.30	1.20	1.10	0.84	0.19	1.03
Sept. 28 - Oct. 11	1.25	1.20	1.15	0.87	0.19	1.06
Oct. 12 - Oct. 25	1.27	1.10	1.08	0.86	0.19	1.05
Oct. 26 - Nov. 8	1.35	1.14	1.15	0.85	0.19	1.04
Nov. 9 - Nov. 22	1.10	1.00	1.01	0.81	0.19	1.00
Nov. 23 - Dec. 6	1.13	1.00	1.09	0.84	0.19	1.03
Dec. 7 - Dec. 20	1.25	1.05	1.13	0.86	0.19	1.05
Dec. 21 - Jan. 3/86	1.35	1.10	1.16	0.87	0.19	1.06

Average	1.08	1.06	1.06	0.81	0.19	1.00
Range	0.88 - 1.35	0.96 - 1.20	0.96 - 1.17	0.74 - 0.94		0.93 - 1.13
% Outside Recommended Limits	0%					
No. of Samples	26	26	26	26	26	26

File: 7.2.1.

December 22, 1986

Mr. J.K. Wishart
Secretary-Treasurer
Town of Minnedosa
P.O. Box 426
Minnedosa, MB
ROJ 1E0

Dear Sir:

Re: 1985 FLUORIDATION CONTROL DATA FOR MINNEDOSA

The attached data summarizes the 1985 fluoride program for the Town of Minnedosa.

Yours truly,

Jim Senka, B.Sc.
Fluoridation Officer

JS/mb
attch.

File: 7.2.1.

December 22, 1986

Mr. Abe Bergmann
Secretary Treasurer
Town of Morden
P.O. Box 2440
Morden, Manitoba
ROG 1JO

Dear Sir:

Re: 1985 FLUORIDE CONTROL DATA FOR MORDEN

The attached data summarizes the 1985 fluoride program for the Town of Morden.

All of the required 26 bi-weekly composite samples were submitted. Of these, 3, or 12% contained fluoride in concentrations outside the acceptable range of 0.80 - 1.20 mg/l.

The fact that the "theoretical" content is consistently higher than the readings by the lab and the operator indicates that a 4% solution is not being attained in the saturator tank. A common cause for this is the precipitating of fluoride ions by un-softened water. It is recommended that water being used for fluoride solution make-up be softened first. The cost of a reliable, automatic water softener is $500. You may want to balance this against the cost of excess sodium fluoride used due to make-up of the solution with hard water. (The additional cost would be 1.65/1.08 x cost of NaF/yr. - see "average" row of attached data sheet)

The consistency in the fluoride concentrations of your water is a reflection of your operator Mr. Kroeker's conscientiousness in operating the fluoride equipment.

Yours truly,

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/lk
attch.
c.c. Mr. Dick Kroeker

FLUORIDATION CONTROL RECORD

LOCATION: MORDEN

CHEMICAL: NaF 4%

TEST KIT: Hach Filterphotometer

FLUORIDATOR : 2 - W&T A-417 Feeders

OPERATOR: Dick Kroeker

TELEPHONE: Plant: 822-5707

No Softener

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	1.20	0.90	0.96	1.51	0.32	1.83
Jan. 19 - Feb. 1	1.17	0.95	0.86	0.92	0.32	1.24
Feb. 2 - Feb. 15	1.23	0.90	0.99	1.56	0.32	1.88
Feb. 16 - Mar. 1	1.20	1.00	1.00	1.50	0.32	1.82
Mar. 2 - Mar. 15	1.15	1.00	0.95	1.46	0.32	1.78
Mar. 16 - Mar. 29	1.12	0.90	0.82	1.53	0.32	1.85
Mar. 30 - Apr. 12	1.07	0.80	0.86	1.54	0.32	1.86
Apr. 13 - Apr. 26	1.14	1.05	1.07	1.57	0.32	1.89
Apr. 27 - May 10	1.28	0.85	0.85	1.52	0.32	1.84
May 11 - May 24	0.85	0.80	0.82	1.57	0.32	1.89
May 25 - June 7	1.17	-	-	-	-	-
June 8 - June 21	0.95	0.90	0.90	1.37	0.32	1.69
June 22 - July 5	1.20	1.20	1.15	1.35	0.32	1.67
July 6 - July 19	1.30	0.95	1.11	1.38	0.32	1.70
July 20 - Aug. 2	0.89	0.50	0.69	1.37	0.32	1.69
Aug. 3 - Aug. 16	1.04	1.10	1.21	1.38	0.32	1.70
Aug. 17 - Aug. 30	0.87	1.25	0.91	2.08	0.32	2.40
Aug. 31 - Sept. 13	0.95	0.90	0.68	1.21	0.32	1.53
Sept. 14 - Sept. 27	1.00	1.50	1.28	1.13	0.32	1.45
Sept. 28 - Oct. 11	1.09	1.20	1.02	1.17	0.32	1.49
Oct. 12 - Oct. 25	1.12	1.10	1.10	1.14	0.32	1.46
Oct. 26 - Nov. 8	0.96	0.90	0.87	1.09	0.32	1.41
Nov. 9 - Nov. 22	1.09	0.75	0.68	0.60	0.32	0.92
Nov. 23 - Dec. 6	0.89	0.70	0.63	1.12	0.32	1.44
Dec. 7 - Dec. 20	1.08	0.85	0.93	1.10	0.32	1.42
Dec. 21 - Jan. 3/86	1.03	0.80	0.92	1.07	0.32	1.39

Average	1.08	0.95	0.93	1.33	0.32	1.65
Range	0.85 - 1.28	0.50 - 1.50	0.63 - 1.21	0.60 - 2.08		0.92 - 2.40
% Outside Recommended Limits	12%					
No. of Samples	26	25	25	25	26	25

File: 7.2.1.

December 22, 1986

Mr. Dale Lyle
Secretary Treasurer
Town of Neepawa
P.O. Box 339
Neepawa, Manitoba
ROJ 1HO

Dear Sir:

Re: 1985 FLUORIDATION CONTROL DATA FOR NEEPAWA

The attached data summarizes the 1985 fluoride program for the Town of Neepawa.

All of the required 26 bi-weekly composite samples were submitted. All of these samples contained fluoride in concentrations within the recommended limits of 0.80 to 1.20 mg/l.

This data reflects an excellent job by your water treatment staff in maintaining the levels of fluoride in the water within the correct range.

Yours truly,

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/lk
attch.
c.c. Mr. George Squires

FLUORIDATION CONTROL RECORD

LOCATION: NEEPAWA
CHEMICAL: Na2Sif6 (Dry)
TEST KIT: Hach Spectrophotometer

FLUORIDATOR : W&T A-690 Ser# 3811
OPERATOR: Richard Chorneyko - Town Supt.
TELEPHONE: Norman Ward - Supt.
Plant: 476-5331 George Squires

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	1.13	1.00	1.00	1.06	0.28	1.34
Jan. 19 - Feb. 1	1.06	-	-	-	0.28	-
Feb. 2 - Feb. 15	1.05	1.10	1.00	0.98	0.30	1.28
Feb. 16 - Mar. 1	1.00	1.00	1.04	0.97	0.28	1.25
Mar. 2 - Mar. 15	0.84	0.90	1.00	0.77	0.29	1.06
Mar. 16 - Mar. 29	1.04	0.90	0.95	0.84	0.32	1.16
Mar. 30 - Apr. 12	1.14	1.00	-	0.88	0.30	1.18
Apr. 13 - Apr. 26	0.95	1.00	1.01	0.91	0.30	1.21
Apr. 27 - May 10	0.96	1.00	1.00	0.85	0.20	1.05
May 11 - May 24	1.10	0.90	0.92	0.79	0.21	1.00
May 25 - June 7	1.08	1.00	0.99	0.95	0.24	1.19
June 8 - June 21	1.08	0.90	0.89	0.82	0.29	1.11
June 22 - July 5	1.18	0.90	0.94	0.81	0.24	1.05
July 6 - July 19	1.07	0.90	0.88	-	0.21	-
July 20 - Aug. 2	1.03	1.00	0.91	0.93	0.22	1.15
Aug. 3 - Aug. 16	1.10	0.90	0.99	1.06	0.22	1.28
Aug. 17 - Aug. 30	1.10	1.10	1.13	1.23	0.22	1.45
Aug. 31 - Sept. 13	1.05	1.10	1.16	1.02	0.23	1.25
Sept. 14 - Sept. 27	0.91	1.00	1.15	1.06	0.22	1.28
Sept. 28 - Oct. 11	0.98	1.10	1.18	1.20	0.25	1.45
Oct. 12 - Oct. 25	1.06	1.10	1.14	0.96	0.21	1.17
Oct. 26 - Nov. 8	1.00	1.10	1.16	0.91	0.25	1.16
Nov. 9 - Nov. 22	0.88	1.10	1.18	0.94	0.28	1.22
Nov. 23 - Dec. 6	1.00	1.10	1.14	1.05	0.24	1.29
Dec. 7 - Dec. 20	0.86	1.10	1.11	0.86	0.30	1.16
Dec. 21 - Jan. 3/86	0.89	1.20	1.20	0.99	0.24	1.23

Average	1.02	0.97	1.04	0.95	0.25	1.21
Range	0.84 - 1.18	0.90 - 1.20	0.88 - 1.20	0.77 - 1.23	0.21 - 0.30	1.05 - 1.45
% Outside Recommended Limits	0%					
No. of Samples	26	25	24	24		24

File: 7.2.1.

December 22, 1986

Mr. R.A. Dale
Resident Administrator
L.G.D. of Pinawa
P.O. Box 100
Pinawa, Manitoba
ROE 1LO

Dear Sir:

Re: 1985 FLUORIDATION CONTROL DATA FOR PINAWA

The attached data summarizes the 1985 fluoride program for the L.G.D. of Pinawa.

All of the required 25 bi-weekly composite samples were submitted. No fluoride was fed from June 22 to July 4 because the feeder was out of service. Your water treatment plant operator, Mr. Ron McDowall has done a good job in keeping the fluoride equipment working properly.

Yours truly,

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/lk
attch.
c.c. Mr. Ron McDowall

FLUORIDATION CONTROL RECORD

LOCATION: PINAWA

CHEMICAL: Na2Sif6

TEST KIT: Hach Spectrophotometer

FLUORIDATOR : W&T A-690 Ser# LD3829

OPERATOR: Ron McDowall

TELEPHONE: Plant: 753-2542

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	0.78	0.95	0.95	0.69	0.08	0.77
Jan. 19 - Feb. 1	0.97	1.04	1.04	1.13	0.08	1.21
Feb. 2 - Feb. 15	0.93	0.96	0.96	0.80	0.08	0.88
Feb. 16 - Mar. 1	0.79	1.00	0.99	0.74	0.08	0.82
Mar. 2 - Mar. 15	0.87	0.97	0.99	0.76	0.08	0.84
Mar. 16 - Mar. 29	0.82	0.95	0.96	0.70	0.08	0.78
Mar. 30 - Apr. 12	1.13	0.96	0.96	0.85	0.08	0.93
Apr. 13 - Apr. 26	1.16	1.00	1.07	0.94	0.08	1.02
Apr. 27 - May 10	1.38	1.15	1.13	1.04	0.08	1.12
May 11 - May 24	0.86	0.97	0.97	0.74	0.08	0.82
May 25 - June 7	0.80	0.96	0.96	0.66	0.08	0.74
June 8 - June 21	0.71	1.01	0.98	0.81	0.08	0.89
June 22 - July 5	-	-	-	-	-	-
July 6 - July 19	1.47	1.02	1.02	0.95	0.08	1.03
July 20 - Aug. 2	1.24	1.08	1.08	0.79	0.08	0.87
Aug. 3 - Aug. 16	0.80	0.92	0.94	1.03	0.08	1.11
Aug. 17 - Aug. 30	0.77	0.90	0.91	0.80	0.08	0.88
Aug. 31 - Sept. 13	0.94	0.95	0.96	0.81	0.08	0.89
Sept. 14 - Sept. 27	0.80	0.95	0.96	0.70	0.08	0.78
Sept. 28 - Oct. 11	0.93	1.01	0.98	0.79	0.08	0.87
Oct. 12 - Oct. 25	0.97	0.93	0.89	0.84	0.08	0.92
Oct. 26 - Nov. 8	1.05	0.97	0.96	0.96	0.08	1.04
Nov. 9 - Nov. 22	1.07	1.00	1.00	0.91	0.08	0.99
Nov. 23 - Dec. 6	0.86	0.95	0.96	0.82	0.08	0.90
Dec. 7 - Dec. 20	1.13	1.06	1.06	1.00	0.08	1.08
Dec. 21 - Jan. 3/86	0.97	0.95	0.97	0.79	0.08	0.87

Average	0.97	0.95	0.99	0.84	0.08	0.92
Range	0.77 - 1.47	0.92 - 1.15	0.89 - 1.13	0.69 - 1.13		0.77 - 1.21
% Outside Recommended Limits	28%					
No. of Samples	25	25	25	25	26	25

File: 7.2.1.

December 22, 1986

Mr. Wayne Woodman
Secretary Treasurer
City of Portage la Prairie
P.O. Box 490
Portage la Prairie, Manitoba
R1N 2B2

Dear Sir:

Re: 1985 FLUORIDE CONTROL DATA FOR PORTAGE LA PRAIRIE

The attached data summarizes the 1985 fluoride program for the City of Portage la Prairie.

24 of the required 26 bi-weekly composite samples were submitted. Of these, 3, or 12% contained fluoride in concentrations outside the acceptable range. Note that the acceptable range was changed in August, 1985 from 0.80 - 1.20 to 1.00 to 1.40 mg/l.

This data indicates that the Portage la Prairie water treatment plant staff have done a good job of maintaining the levels of fluoride in the water within the correct range.

Yours truly,

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/lk
attch.
c.c. Mr. M. Yablonski

FLUORIDATION CONTROL RECORD

LOCATION: PORTAGE LA PRAIRIE

CHEMICAL: Na2Sif6 (DRY)

TEST KIT: Specific Ion Electrode

FLUORIDATOR : W&T A-690 Ser# LDF 20089

OPERATOR: M. Yablonski/J. Cronk

TELEPHONE: Plant: 857-9781 L. Craig

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	1.07	1.20	1.12	0.78	0.20	0.98
Jan. 19 - Feb. 1	1.05	1.10	1.12	0.73	0.20	0.93
Feb. 2 - Feb. 15	1.10	1.45	1.19	0.73	0.20	0.93
Feb. 16 - Mar. 1	-	1.05	1.07	0.71	0.20	0.91
Mar. 2 - Mar. 15	1.11	1.15	1.19	0.80	0.20	1.00
Mar. 16 - Mar. 29	1.12	1.14	1.19	0.76	0.20	0.96
Mar. 30 - Apr. 12	0.88	1.00	1.04	0.62	0.20	0.82
Apr. 13 - Apr. 26	1.05	1.25	1.15	0.94	0.20	1.14
Apr. 27 - May 10	1.08	1.21	1.19	0.84	0.20	1.04
May 11 - May 24	0.78	1.00	0.98	0.73	0.20	0.93
May 25 - June 7	1.04	1.10	1.16	0.85	0.20	1.05
June 8 - June 21	1.09	1.08	1.14	0.88	0.20	1.08
June 22 - July 5	1.18	1.11	1.25	0.93	0.20	1.13
July 6 - July 19	1.05	1.20	-	0.83	0.20	1.03
July 20 - Aug. 2	0.77	0.92	0.98	0.57	0.20	0.77
Aug. 3 - Aug. 16	0.83	1.00	0.97	0.68	0.20	0.88
Aug. 17 - Aug. 30	0.99	1.28	1.24	0.97	0.20	1.17
Aug. 31 - Sept. 13	-	1.32	1.29	0.91	0.20	1.11
Sept. 14 - Sept. 27	1.09	1.21	1.20	0.83	0.20	1.03
Sept. 28 - Oct. 11	1.14	1.30	1.28	0.96	0.20	1.16
Oct. 12 - Oct. 25	1.45	1.40	1.31	0.94	0.20	1.14
Oct. 26 - Nov. 8	1.14	1.20	1.15	0.89	0.20	1.09
Nov. 9 - Nov. 22	1.26	1.31	1.30	1.03	0.20	1.23
Nov. 23 - Dec. 6	1.07	1.21	1.12	0.80	0.20	1.00
Dec. 7 - Dec. 20	1.25	1.35	1.34	0.90	0.20	1.10
Dec. 21 - Jan. 3/86	1.08	1.15	1.23	0.86	0.20	1.06

Average	1.07	1.13	1.12	0.83	0.20	1.03
Range	0.77 - 1.45	0.92 - 1.45	0.97 - 1.34	0.57 - 1.03		0.77 - 1.23
% Outside Recommended Limits	12%					
No. of Samples	24	26	25	26	26	26

File: 7.2.1.

December 22, 1986

Mayor and Council
Town of Rivers
P.O. Box 520
Rivers, Manitoba
ROK 1XO

Dear Sir:

Re: 1985 FLUORIDE CONTROL DATA FOR RIVERS

The attached data summarizes the 1985 fluoride program for the Town of Rivers.

25 of the required 26 bi-weekly composite samples were submitted. All of these were outside the recommended limits of 0.80 to 1.20 mg/l.

It was felt at one point that the cause for the erratic fluoride levels was due to a faulty solenoid switch on the fluoride saturator. However, this was repaired in 1986 resulting in limited improvement of the fluoride levels.

Yours truly,

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/lk
attch.
c.c. Mr. Jeff Worth

FLUORIDATION CONTROL RECORD

LOCATION: RIVERS
CHEMICAL: 4% NaF
TEST KIT:

FLUORIDATOR : Prairie Ind. Myers Pump
OPERATOR: Jeff Worth
TELEPHONE: Town Off: 328-5250
328-7480 Basement: 328-7862

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	1.44	1.20	0.76	1.65	0.18	1.83
Jan. 19 - Feb. 1	0.28	0.70	0.74	1.63	0.18	1.81
Feb. 2 - Feb. 15	0.24	0.70	0.75	1.86	0.18	2.04
Feb. 16 - Mar. 1	1.35	1.20	0.89	1.79	0.18	1.97
Mar. 2 - Mar. 15	0.23	0.70	0.75	1.51	0.18	1.69
Mar. 16 - Mar. 29	0.20	0.70	0.71	1.52	0.18	1.70
Mar. 30 - Apr. 12	0.20	0.70	0.70	1.18	0.18	1.36
Apr. 13 - Apr. 26	1.50	0.75	0.85	0.18	0.18	0.36
Apr. 27 - May 10	1.33	0.75	0.67	0.21	0.18	0.39
May 11 - May 24	0.35	0.75	0.74	1.23	0.18	1.41
May 25 - June 7	1.75	0.70	0.66	0.07	0.18	0.25
June 8 - June 21	0.27	0.70	0.71	0.31	0.18	0.49
June 22 - July 5	0.24	0.60	0.63	3.32	0.18	3.50
July 6 - July 19	0.18	0.60	0.60	0.11	0.18	0.29
July 20 - Aug. 2	0.25	0.50	0.64	6.64	-	6.82
Aug. 3 - Aug. 16	0.13	0.70	0.67	-	-	-
Aug. 17 - Aug. 30	0.12	0.60	0.61	-	-	-
Aug. 31 - Sept. 13	-	0.60	0.64	0.16	0.18	0.34
Sept. 14 - Sept. 27	0.16	0.70	0.69	-	-	-
Sept. 28 - Oct. 11	0.16	0.70	0.70	-	-	-
Oct. 12 - Oct. 25	0.16	0.30	0.44	-	-	-
Oct. 26 - Nov. 8	0.19	0.50	0.71	3.75	0.18	3.93
Nov. 9 - Nov. 22	1.50	0.78	0.70	3.04	0.18	3.22
Nov. 23 - Dec. 6	0.24	0.60	0.62	-	-	-
Dec. 7 - Dec. 20	0.19	0.60	0.60	-	-	-
Dec. 21 - Jan. 3/86	0.17	0.60	0.60	-	-	-

Average	0.51	0.69	0.68	1.68	0.18	1.86
Range	0.12 - 1.50	0.30 - 1.20	0.44 - 0.89	0.11 - 6.64		0.29 - 6.82
% Outside Recommended Limits	100%					
No. of Samples	25	26	26	18	26	18

File: 7.2.1.

December 22, 1986

Mr. Douglas Frost - Hunt
Secretary Treasurer
Town of Roblin
P.O. Box 730
Roblin, Manitoba
ROL 1PO

Dear Sir:

Re: 1985 FLUORIDATION DATA FOR ROBLIN

The attached data summarizes the 1985 fluoride program for Roblin.

All of the required 26 bi-weekly composite samples were submitted.

Your plant operators Mr. Currie and Mr. Holopina have done a good job in controlling the levels of fluoride in the treated water within the correct range.

Yours truly,

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/lk
attch.
c.c. Mr. Art Currie
Mr. Nick Holopina

FLUORIDATION CONTROL RECORD

LOCATION: ROBLIN

CHEMICAL: NaF 4%

TEST KIT: Hach Spectrophotometer

FLUORIDATOR : W&T A-745 Ser# LDP 313

OPERATOR: Art Currey Nick Holopina

TELEPHONE: Plant: 937-2377

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	1.17	0.90	0.96	0.64	0.26	0.90
Jan. 19 - Feb. 1	1.24	1.10	1.15	0.80	0.26	1.06
Feb. 2 - Feb. 15	1.23	1.20	1.15	0.75	0.26	1.01
Feb. 16 - Mar. 1	0.97	0.95	0.97	0.68	0.26	0.94
Mar. 2 - Mar. 15	0.79	0.90	0.95	0.62	0.26	0.88
Mar. 16 - Mar. 29	1.09	1.00	1.00	0.69	0.26	0.95
Mar. 30 - Apr. 12	1.13	1.20	1.03	0.59	0.26	0.85
Apr. 13 - Apr. 26	1.03	1.05	1.01	0.57	0.26	0.83
Apr. 27 - May 10	1.07	1.00	1.02	0.63	0.26	0.89
May 11 - May 24	0.82	0.95	0.99	0.60	0.26	0.86
May 25 - June 7	1.08	1.00	1.00	0.53	0.26	0.79
June 8 - June 21	0.56	0.90	0.92	0.64	0.26	0.90
June 22 - July 5	1.09	1.20	1.07	0.66	0.26	0.92
July 6 - July 19	0.70	0.92	0.94	0.62	0.26	0.98
July 20 - Aug. 2	0.95	0.95	0.97	0.74	0.26	1.00
Aug. 3 - Aug. 16	0.96	1.10	1.01	0.91	0.26	1.17
Aug. 17 - Aug. 30	0.96	1.05	1.05	0.82	0.26	1.08
Aug. 31 - Sept. 13	0.95	0.95	0.97	0.82	0.26	1.08
Sept. 14 - Sept. 27	0.77	0.80	0.72	0.76	0.26	1.02
Sept. 28 - Oct. 11	0.93	1.05	0.84	1.11	0.26	1.37
Oct. 12 - Oct. 25	1.03	1.10	1.10	0.58	0.26	0.84
Oct. 26 - Nov. 8	1.00	1.10	1.08	0.66	0.26	0.92
Nov. 9 - Nov. 22	1.09	1.10	1.08	0.80	0.26	1.06
Nov. 23 - Dec. 6	1.00	1.05	1.06	0.67	0.26	0.93
Dec. 7 - Dec. 20	1.13	1.15	1.12	0.62	0.26	0.88
Dec. 21 - Jan. 3/86	1.25	1.12	1.12	0.70	0.26	0.96

Average	1.00	0.99	1.01	0.70	0.26	0.96
Range	0.56 - 1.25	0.80 - 1.20	0.72 - 1.15	0.53 - 1.11		0.79 - 1.37
% Outside Recommended Limits	23%					
No. of Samples	26	26	26	26	26	26

File: 7.2.1.

December 22, 1986

Mr. Lionel E. Dane
Secretary Treasurer
Town of Souris
P.O. Box 518
Souris, Manitoba
ROK 2CO

Dear Sir:

Re: 1985 FLUORIDE CONTROL DATA FOR SOURIS

The attached data summarizes the 1985 fluoride program for the Town of Souris.

25 of the required 26 bi-weekly composite samples were submitted. All of these contained fluoride in concentrations within the acceptable limits. Note that the acceptable limit was changed in August from 0.80 - 1.20 to 1.00 - 1.40 mg/l.

This data reflects an excellent job by your operator Mr. Zander.

Yours truly,

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/lk
attch.
c.c. Mr. Bill Zander

FLUORIDATION CONTROL RECORD

LOCATION: SOURIS

CHEMICAL: NaF 3%

TEST KIT: Hach Colormeter/PH Meter

FLUORIDATOR : W&T A-747

OPERATOR: Bill Zander

TELEPHONE: Plant: 483-3096

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	1.00	0.98	0.99	0.93	0.19	1.12
Jan. 19 - Feb. 1	1.03	1.00	1.02	1.09	0.19	1.28
Feb. 2 - Feb. 15	1.08	1.12	1.10	0.97	0.19	1.16
Feb. 16 - Mar. 1	1.01	1.15	1.10	0.94	0.19	1.13
Mar. 2 - Mar. 15	1.00	1.02	1.06	0.85	0.19	1.04
Mar. 16 - Mar. 29	0.99	1.10	0.97	0.82	0.19	1.01
Mar. 30 - Apr. 12	1.05	1.00	1.02	1.02	0.19	1.21
Apr. 13 - Apr. 26	1.05	1.10	1.02	0.99	0.19	1.18
Apr. 27 - May 10	1.16	1.10	1.13	0.89	0.19	1.08
May 11 - May 24	1.03	1.00	1.04	0.90	0.19	1.09
May 25 - June 7	0.91	1.00	0.96	0.89	0.19	1.08
June 8 - June 21	0.96	1.10	1.02	0.84	0.19	1.03
June 22 - July 5	-	1.00	1.04	0.95	0.19	1.14
July 6 - July 19	0.88	1.05	1.03	0.95	0.19	1.14
July 20 - Aug. 2	1.00	1.10	1.13	1.00	0.19	1.19
Aug. 3 - Aug. 16	1.04	1.00	1.12	1.00	0.19	1.19
Aug. 17 - Aug. 30	0.95	1.25	1.17	-	-	-
Aug. 31 - Sept. 13	1.27	1.20	1.23	1.12	0.19	1.31
Sept. 14 - Sept. 27	1.13	1.20	1.16	1.12	0.19	1.31
Sept. 28 - Oct. 11	1.08	1.10	1.14	1.16	0.19	1.35
Oct. 12 - Oct. 25	1.23	1.25	1.21	1.43	0.19	1.62
Oct. 26 - Nov. 8	1.12	1.18	1.22	1.29	0.19	1.48
Nov. 9 - Nov. 22	1.10	1.18	1.21	-	-	-
Nov. 23 - Dec. 6	1.20	1.22	1.19	1.20	0.19	1.39
Dec. 7 - Dec. 20	1.22	1.13	1.25	1.20	0.19	1.39
Dec. 21 - Jan. 3/86	1.17	1.17	1.21	1.13	0.19	1.42

Average	1.07	1.10	1.11	1.03	0.19	1.22
Range	0.88 - 1.27	0.98 - 1.25	0.96 - 1.25	0.85 - 1.42		1.01 - 1.62
% Outside Recommended Limits	0%					
No. of Samples	25	26	26	24	26	24

File: 7.2.1.

December 22, 1986

Mr. Jack Kehler
Secretary Treasurer
P.O. Box 1090
Steinbach, Manitoba
ROA 2AO

Dear Sir:

Re: 1985 FLUORIDE CONTROL DATA FOR STEINBACH

The attached data summarizes the 1985 fluoride program for the Town of Steinbach.

All of the required 26 bi-weekly composite samples were submitted. All of these contained fluoride in concentrations within the required limits.

This data reflects an excellent job by your water treatment plant operator Mr. Klassen.

Yours truly,

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/lk
attch.
c.c. Mr. Ross Klassen

FLUORIDATION CONTROL RECORD

LOCATION: STEINBACH

CHEMICAL: NaF 3%

TEST KIT: Hach Spectrophotometer

FLUORIDATOR : W&T A-747

OPERATOR: Bernie Doerksen - W/WKS Supt.

TELEPHONE: Ross Klassen - Asst. " " "

Office: 326-9877 Ext. 14

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	1.03	1.00	1.00	0.54	0.39	0.93
Jan. 19 - Feb. 1	1.00	1.04	1.04	0.61	0.39	1.00
Feb. 2 - Feb. 15	1.05	-	1.02	0.54	0.39	0.93
Feb. 16 - Mar. 1	0.97	1.01	1.03	0.59	0.39	0.98
Mar. 2 - Mar. 15	0.95	1.04	1.04	0.50	0.39	0.89
Mar. 16 - Mar. 29	0.95	1.05	1.05	0.55	0.39	0.94
Mar. 30 - Apr. 12	1.00	1.01	1.01	0.53	0.39	0.92
Apr. 13 - Apr. 26	1.00	1.02	1.02	0.51	0.39	0.90
Apr. 27 - May 10	0.98	1.03	1.02	0.51	0.39	0.90
May 11 - May 24	1.00	1.04	1.04	0.50	0.39	0.89
May 25 - June 7	0.87	1.03	1.03	0.61	0.39	1.00
June 8 - June 21	0.95	1.03	1.04	0.45	0.39	0.84
June 22 - July 5	0.96	1.01	1.01	0.58	0.39	0.97
July 6 - July 19	0.98	1.03	1.04	0.58	0.39	0.97
July 20 - Aug. 2	1.03	1.04	1.05	0.53	0.39	0.92
Aug. 3 - Aug. 16	0.98	0.99	1.00	0.53	0.39	0.92
Aug. 17 - Aug. 30	1.03	1.10	1.03	0.58	0.39	0.97
Aug. 31 - Sept. 13	1.08	1.04	1.04	0.53	0.39	0.92
Sept. 14 - Sept. 27	1.07	1.12	1.12	0.63	0.39	1.02
Sept. 28 - Oct. 11	1.08	1.10	1.10	0.61	0.39	1.00
Oct. 12 - Oct. 25	1.12	1.09	1.09	0.63	0.39	1.02
Oct. 26 - Nov. 8	1.13	1.09	1.09	0.70	0.39	1.09
Nov. 9 - Nov. 22	1.15	1.11	1.11	0.59	0.39	.98
Nov. 23 - Dec. 6	1.00	1.07	1.07	0.62	0.39	1.01
Dec. 7 - Dec. 20	1.08	1.02	1.03	0.66	0.39	1.05
Dec. 21 - Jan. 3/86	1.08	1.08	1.09	0.68	0.39	1.07

Average	1.06	1.05	1.05	0.57	0.39	0.96
Range	0.87 - 1.15	0.9 - 1.12	1.00 - 1.12	0.45 - 0.70		0.84 - 1.09
% Outside Recommended Limits	0%					
No. of Samples	26	25	26	26	26	26

Manitoba

Health

File: 7.2.1.

December 22, 1986

Mr. Harry Showdra
Secretary Treasurer
Town of Swan River
P.O. Box 879
Swan River, Manitoba
ROL 1ZO

Dear Sir:

Re: 1985 FLUORIDE CONTROL DATA FOR SWAN RIVER

The attached data summarizes the 1985 fluoride program for the Town of Swan River.

25 of the required 26 bi-weekly composite samples were submitted. Of these 5, or 20% contained fluoride in concentrations outside the acceptable range. Note that the acceptable range was changed from 0.80 - 1.20 to 1.00 - 1.40 in the fall of 1985.

Your town Superintendent, Mr. Sopotyk has explained that during 1985, minor over-feed situations would occur when the well pump cycles were not properly co-ordinated with the fluoride feed system. This has been changed and fluoride levels have been more consistent in 1986.

Your water treatment plant staff have done a good job of maintaining the fluoride feed system for the Town of Swan River.

Yours truly,

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/lk
attch.
c.c. Mr. Dick Sopotyk
Mr. Larry Lemon/Mr. Mel Phillips

FLUORIDATION CONTROL RECORD

LOCATION: SWAN RIVER

CHEMICAL: NaF 3%

TEST KIT: Hach Spectrophotometer

FLUORIDATOR : W&T 44-222 Ser# YY06251

OPERATOR: Dick Sopotyk - Town Supt.

TELEPHONE: Office 734-4586 WTP: 734-4628

Larry Lemon
Mel Phillips WTP Operators

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	1.07	1.10	1.08	0.78	0.18	0.96
Jan. 19 - Feb. 1	1.12	1.00	1.07	0.84	0.18	1.02
Feb. 2 - Feb. 15	0.95	1.10	1.04	0.84	0.18	1.02
Feb. 16 - Mar. 1	1.04	1.00	1.04	0.70	0.18	0.88
Mar. 2 - Mar. 15	0.94	1.00	0.98	-	-	-
Mar. 16 - Mar. 29	1.30	1.20	1.04	0.93	0.18	1.11
Mar. 30 - Apr. 12	1.32	1.20	1.16	1.56	0.18	1.74
Apr. 13 - Apr. 26	1.12	1.10	1.06	0.99	0.18	1.17
Apr. 27 - May 10	0.83	0.90	0.94	1.16	0.18	1.34
May 11 - May 24	0.85	1.00	0.94	1.20	0.18	1.38
May 25 - June 7	1.29	1.00	1.07	1.16	0.18	1.34
June 8 - June 21	1.13	1.10	1.08	1.06	0.18	1.24
June 22 - July 5	1.40	1.20	1.16	1.21	0.18	1.39
July 6 - July 19	1.09	1.10	1.02	1.03	0.18	1.21
July 20 - Aug. 2	1.10	1.15	1.06	1.18	0.18	1.36
Aug. 3 - Aug. 16	0.96	1.10	1.08	0.96	0.18	1.14
Aug. 17 - Aug. 30	-	1.00	1.04	1.45	0.18	1.63
Aug. 31 - Sept. 13	0.84	0.90	0.98	1.13	0.18	1.31
Sept. 14 - Sept. 27	0.85	1.00	0.98	1.14	0.18	1.32
Sept. 28 - Oct. 11	1.14	0.90	0.95	1.07	0.18	1.25
Oct. 12 - Oct. 25	1.24	1.00	0.98	0.79	0.18	0.97
Oct. 26 - Nov. 8	1.20	1.00	0.96	0.94	0.18	1.12
Nov. 9 - Nov. 22	1.20	1.00	0.99	0.83	0.18	1.01
Nov. 23 - Dec. 6	1.23	1.00	0.99	1.02	0.18	1.20
Dec. 7 - Dec. 20	1.98	1.10	0.99	1.08	0.18	1.26
Dec. 21 - Jan. 3/86	1.25	1.20	1.00	1.31	0.18	1.49

Average	1.14	1.05	1.03	1.05	0.18	1.23
Range	0.83 - 1.98	0.90 - 1.20	0.94 - 1.16	0.70 - 1.56		0.88 - 1.74
% Outside Recommended Limits	20%					
No. of Samples	25	26	26	25	26	25

File: 7.2.1.

December 22, 1986

Mr. A. Moule
Municipal Administrator
Town of The Pas
P.O. Box 870
The Pas, Manitoba
R9A 2V0

Dear Sir:

Re: 1985 FLUORIDE CONTROL DATA FOR THE PAS

The attached data summarizes the 1985 fluoride program for the Town of The Pas.

25 of the required 26 bi-weekly composite samples were submitted. All of these samples contained fluoride in concentrations within the acceptable range. Note that the acceptable range was changed from 0.80 - 1.20 to 1.00 - 1.40 in August, 1985.

This data is the reflection of excellent work by your water treatment plant operators.

Yours truly,

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/lk
attch.
c.c. Mr. Russ Yachiw

FLUORIDATION CONTROL RECORD

LOCATION: THE PAS

FLUORIDATOR : W&T Series 32-050 Ser# LDF20252

CHEMICAL: Na2Sif6 (DRY)

OPERATOR: Russ Yachiw Ronald F. Stewart

TEST KIT: Hach DR/1 Colorimeter/PH Meter

TELEPHONE: Plant: 623-6338

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	1.17	1.15	1.14	1.61	0.15	1.76
Jan. 19 - Feb. 1	1.09	1.05	1.07	1.37	0.15	1.52
Feb. 2 - Feb. 15	1.07	1.02	1.06	1.50	0.15	1.65
Feb. 16 - Mar. 1	1.09	1.12	1.11	1.48	0.15	1.63
Mar. 2 - Mar. 15	1.15	1.18	1.12	1.08	0.15	1.23
Mar. 16 - Mar. 29	1.07	1.15	1.14	1.18	0.15	1.33
Mar. 30 - Apr. 12	1.03	0.98	1.04	1.09	0.15	1.24
Apr. 13 - Apr. 26	0.85	0.82	0.86	1.01	0.15	1.16
Apr. 27 - May 10	1.08	1.08	1.06	1.00	0.15	1.15
May 11 - May 24	0.95	1.02	0.95	0.94	0.15	1.09
May 25 - June 7	1.02	1.10	1.11	0.98	0.15	1.13
June 8 - June 21	1.05	1.13	1.10	1.08	0.15	1.23
June 22 - July 5	1.08	1.15	1.15	1.02	0.15	1.17
July 6 - July 19	1.11	1.19	1.18	0.88	0.15	1.03
July 20 - Aug. 2	1.00	1.08	1.03	0.85	0.15	1.00
Aug. 3 - Aug. 16	1.08	1.02	1.00	0.98	0.15	1.13
Aug. 17 - Aug. 30	0.99	0.95	0.85	1.02	0.15	1.17
Aug. 31 - Sept. 13	-	1.20	1.20	1.06	0.15	1.21
Sept. 14 - Sept. 27	1.10	1.14	1.16	0.95	0.15	1.10
Sept. 28 - Oct. 11	1.10	1.15	1.17	1.05	0.15	1.20
Oct. 12 - Oct. 25	1.09	1.15	1.19	1.17	0.15	1.32
Oct. 26 - Nov. 8	1.17	1.10	1.13	1.00	0.15	1.15
Nov. 9 - Nov. 22	1.27	1.25	1.21	1.06	0.15	1.21
Nov. 23 - Dec. 6	1.13	1.12	1.15	1.05	0.15	1.20
Dec. 7 - Dec. 20	1.25	1.28	1.29	1.02	0.15	1.17
Dec. 21 - Jan. 3/86	1.24	1.25	1.23	1.17	0.15	1.32

Average	1.09	1.11	1.10	1.10	0.15	1.25
Range	0.85 - 1.27	0.82 - 1.28	0.85 - 1.29	0.88 - 1.61		1.03 - 1.76
% Outside Recommended Limits	0%					
No. of Samples	25	26	26	26	26	26

File: 7.2.1.

December 22, 1986

Mr. James F. Archer
Secretary Treasurer
Village of Treherne
P.O. Box 30
Treherne, Manitoba
ROG 2V0

Dear Sir:

Re: 1985 FLUORIDE CONTROL DATA FOR TREHERNE

The attached data summarizes the 1985 fluoride control program for the Village of Treherne.

All of the required 26 bi-weekly composite samples were submitted. Of these, 8, or 30% contained fluoride in concentrations outside the acceptable range. Note that the acceptable range was changed from 0.80 - 1.20 to 1.00 - 1.40 mg/l in the fall of 1985.

The high reading in May can be attributed to either a contaminated sample or an error by our lab and is not a cause for concern.

Your plant operator, Mr. Clarke, informs me that there was a problem with the operation of his test kit in 1985 resulting in the errant readings. In fact the fluoride levels of the treated water have been more consistent in 1986.

Yours truly,

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/lk
attch.
c.c. Mr. Gordon Clarke

FLUORIDATION CONTROL RECORD

LOCATION: TREHERNE

CHEMICAL: NaF 4%

TEST KIT: Hach Filterphotometer

FLUORIDATOR : W&T A-745 Ser# LDP 1603

OPERATOR: Gordon Clark

TELEPHONE: Off: 723-2044 Home: 723-2411

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	1.03	1.10	1.06	1.20	0.32	1.52
Jan. 19 - Feb. 1	0.77	0.95	0.97	0.86	0.32	1.18
Feb. 2 - Feb. 15	0.70	1.05	1.03	1.25	0.32	1.57
Feb. 16 - Mar. 1	1.30	1.10	1.06	1.23	0.32	1.55
Mar. 2 - Mar. 15	0.83	1.00	0.99	-	-	-
Mar. 16 - Mar. 29	0.99	1.10	1.06	1.11	0.32	1.43
Mar. 30 - Apr. 12	0.78	1.00	1.05	1.14	0.32	1.46
Apr. 13 - Apr. 26	1.19	1.10	1.03	1.15	0.32	1.47
Apr. 27 - May 10	0.90	1.00	1.02	0.99	0.32	1.31
May 11 - May 24	3.14	0.95	0.97	1.17	0.32	1.49
May 25 - June 7	0.88	0.45	0.97	1.03	0.32	1.35
June 8 - June 21	0.94	1.00	0.98	1.08	0.32	1.40
June 22 - July 5	0.97	0.95	0.95	1.10	0.32	1.42
July 6 - July 19	1.02	1.00	0.97	0.88	0.32	1.20
July 20 - Aug. 2	1.00	1.00	0.98	0.69	0.32	1.01
Aug. 3 - Aug. 16	1.12	1.10	1.04	1.16	0.32	1.48
Aug. 17 - Aug. 30	1.12	1.00	1.01	0.86	0.32	1.18
Aug. 31 - Sept. 13	0.90	0.95	1.01	0.89	0.32	1.21
Sept. 14 - Sept. 27	0.70	1.00	1.07	1.01	0.32	1.33
Sept. 28 - Oct. 11	0.87	1.20	1.14	1.12	0.32	1.44
Oct. 12 - Oct. 25	2.06	1.00	1.08	0.97	0.32	1.29
Oct. 26 - Nov. 8	1.29	1.10	1.09	1.39	0.32	1.71
Nov. 9 - Nov. 22	1.07	1.05	1.09	1.17	0.32	1.49
Nov. 23 - Dec. 6	1.35	1.00	1.09	1.14	0.32	1.46
Dec. 7 - Dec. 20	1.00	1.10	1.03	1.17	0.32	1.49
Dec. 21 - Jan. 3/86	0.84	1.00	1.05	1.49	0.32	1.81

Average	1.11	1.01	1.03	1.09	0.32	1.41
Range	0.71 - 3.14	0.95 - 1.45	0.97 - 1.14	0.69 - 1.49		1.01 - 1.81
% Outside Recommended Limits	30%					
No. of Samples	26	26	26	25	26	25

File: 7.2.1.

December 22, 1986

Mr. Donald A. Reid
Secretary Treasurer
Town of Virden
P.O. Box 310
Virden, Manitoba
ROM 2CO

Dear Sir:

Re: 1985 FLUORIDE CONTROL DATA FOR VIRDEN

The attached data summarizes the 1985 fluoride program for the Town of Virden.

All of the required 26 bi-weekly composite samples were submitted. The high reading in January can be attributed to either a contaminated sample or an error on the part of our lab. It is not a cause for concern.

Your town superintendent Mr. Penny and his staff have done a good job in keeping the fluoride feed equipment working properly.

Yours truly,

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/lk
attch.
c.c. Mr. Dave Penny

FLUORIDATION CONTROL RECORD

LOCATION: VIRDEN

CHEMICAL: NaF 4%

TEST KIT: Hach DR-100 Colorimeter

FLUORIDATOR : W&T A-745 Ser# LDP 813

OPERATOR: Dave Penny - Town Supt.

TELEPHONE: Plant: 748-1468 STP: 748-3074

Dana Hirst
John McDonald WTP Operators

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	0.95	1.15	1.15	0.63	0.44	1.07
Jan. 19 - Feb. 1	2.50	1.11	1.11	0.62	0.44	1.06
Feb. 2 - Feb. 15	0.70	1.20	0.94	0.64	0.44	1.08
Feb. 16 - Mar. 1	0.53	0.94	0.94	0.68	0.44	1.12
Mar. 2 - Mar. 15	1.00	1.18	1.18	0.63	0.44	1.07
Mar. 16 - Mar. 29	1.04	0.98	0.98	0.65	0.44	1.09
Mar. 30 - Apr. 12	0.68	0.93	1.01	-	-	-
Apr. 13 - Apr. 26	0.90	1.38	1.28	0.66	0.44	1.10
Apr. 27 - May 10	1.07	1.10	1.16	0.35	0.44	0.79
May 11 - May 24	1.00	1.07	1.08	-	0.44	-
May 25 - June 7	1.08	1.05	1.05	0.62	0.44	1.06
June 8 - June 21	0.83	1.15	1.15	0.59	0.44	1.03
June 22 - July 5	1.05	0.93	0.93	0.61	0.44	1.05
July 6 - July 19	1.14	1.05	1.05	-	-	-
July 20 - Aug. 2	0.93	1.05	1.05	0.63	0.44	1.07
Aug. 3 - Aug. 16	0.62	1.04	1.05	0.60	0.44	1.04
Aug. 17 - Aug. 30	0.98	1.07	1.07	0.56	0.44	1.00
Aug. 31 - Sept. 13	0.96	1.00	1.03	0.57	0.44	1.01
Sept. 14 - Sept. 27	1.00	1.10	1.18	0.55	0.44	.99
Sept. 28 - Oct. 11	1.13	0.99	1.00	0.64	0.44	1.08
Oct. 12 - Oct. 25	1.03	1.00	1.06	0.54	0.44	0.98
Oct. 26 - Nov. 8	0.80	1.02	1.02	0.39	0.44	0.83
Nov. 9 - Nov. 22	1.00	0.98	0.99	0.48	0.44	0.92
Nov. 23 - Dec. 6	1.03	0.99	0.99	0.61	0.44	1.05
Dec. 7 - Dec. 20	1.04	1.12	1.12	0.54	0.44	.98
Dec. 21 - Jan. 3/86	1.10	1.03	1.03	0.68	0.44	1.12

Average	1.00	1.06	1.06	0.59	0.44	1.03
Range	0.68 - 2.50	0.93 - 1.38	0.93 - 1.28	0.35 - 0.68	-	0.99 - 1.12
% Outside Recommended Limits	15%					
No. of Samples	26	26	26	23	26	23

File: 7.2.1.

December 22, 1986

Director
Gimli Industrial Park
Gimli, Manitoba
ROC 1B0

Dear Sir:

Re: 1985 FLUORIDE CONTROL DATA FOR GIMLI INDUSTRIAL PARK

The attached data summarizes the fluoride control program for the Gimli Industrial Park.

24 of the required 26 bi-weekly composite samples were submitted. All contained fluoride in concentrations within the acceptable range. Note that the acceptable range was changed from 0.80 - 1.20 to 1.00 - 1.40 in August, 1985.

The plant operator, Mr. Walker has done an excellent job of maintaining the fluoride levels of the water within the correct range.

Yours truly,

Jim Senka

Jim Senka, B.Sc.
Fluoridation Officer

JS/lk
attch.
c.c. Mr. Dave Walker

FLUORIDATION CONTROL RECORD

LOCATION: GIMLI PROPERTIES

CHEMICAL: NaF 4%

TEST KIT: Hach Spectrophotometer

FLUORIDATOR : W&T A-747

OPERATOR: Dave Walker

TELEPHONE: WTP: 642-8420

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	1.00	1.00	1.00	0.57	0.43	1.00
Jan. 19 - Feb. 1	0.95	0.99	0.99	0.77	0.43	1.20
Feb. 2 - Feb. 15	0.9[illegible]	1.00	0.99	0.65	0.43	1.08
Feb. 16 - Mar. 1	0.97	0.98	1.00	0.71	0.43	1.14
Mar. 2 - Mar. 15	1.00	1.01	1.00	0.60	0.43	1.03
Mar. 16 - Mar. 29	1.03	0.99	1.00	0.66	0.43	1.09
Mar. 30 - Apr. 12	0.99	0.96	0.99	0.57	0.43	1.00
Apr. 13 - Apr. 26	-	1.00	0.99	0.66	0.43	1.09
Apr. 27 - May 10	-	0.97	0.98	0.63	0.43	1.06
May 11 - May 24	0.95	0.98	0.99	-	0.43	-
May 25 - June 7	0.91	0.95	0.98	0.61	0.43	1.04
June 8 - June 21	0.92	1.00	0.98	0.62	0.43	1.05
June 22 - July 5	1.05	1.00	1.00	0.65	0.43	1.08
July 6 - July 19	0.98	1.01	1.00	0.70	0.43	1.13
July 20 - Aug. 2	0.98	0.97	1.00	0.66	0.43	1.09
Aug. 3 - Aug. 16	0.90	0.95	1.01	0.59	0.43	1.02
Aug. 17 - Aug. 30	1.07	1.03	1.02	0.69	0.43	1.12
Aug. 31 - Sept. 13	1.26	1.19	1.17	0.86	0.43	1.29
Sept. 14 - Sept. 27	1.40	1.19	1.20	0.81	0.43	1.24
Sept. 28 - Oct. 11	1.20	1.19	1.21	0.67	0.43	1.10
Oct. 12 - Oct. 25	1.13	1.19	1.20	0.70	0.43	1.13
Oct. 26 - Nov. 8	1.14	1.20	1.20	0.80	0.43	1.23
Nov. 9 - Nov. 22	1.15	1.10	1.13	0.87	0.43	1.30
Nov. 23 - Dec. 6	1.00	1.18	1.08	0.90	0.43	1.33
Dec. 7 - Dec. 20	1.17	1.17	1.20	0.92	0.43	1.35
Dec. 21 - Jan. 3/86	1.16	1.19	1.21	0.79	0.43	1.22

Average	1.05	1.05	1.06	0.71	0.43	1.14
Range	0.91 - 1.40	0.95 - 1.20	0.98 - 1.21	0.57 - 0.92		1.00 - 1.35
% Outside Recommended Limits	0%					
No. of Samples	24	26	26	25	26	25

File: 7.2.1

December 22, 1986

Mr. I.B. Henderson P. Eng.
Waterworks Engineer
Works and Operations Division
1500 Plessis Rd.
P.O. Box 178
Winnipeg, MB
R2C 2Z9

Dear Sir:

Re: 1985 FLUORIDATION CONTROL DATA FOR WINNIPEG

The attached data summarizes the results from water samples submitted from your waterworks engineer and analysed by our lab for fluoride content for 1985.

Yours truly,

Jim Senka, B. Sc.
Fluoridation Officer

JS/mb
attch.

FLUORIDATION CONTROL RECORD

LOCATION: City of Winnipeg
CHEMICAL: H_2SiF_6
TEST KIT: Specific Ion Electrode

FLUORIDATOR : W & T
OPERATOR: B. McBride
TELEPHONE: 338-0308

SAMPLING PERIOD	TECH. SERV. COMPOSITE	OPERATOR COMPOSITE	AVERAGE DAILY	CALC. DOSAGE	NATURAL CONTENT	THEORETICAL CONTENT
Jan. 5 - Jan. 18/85	.80					
Jan. 19 - Feb. 1	.79					
Feb. 2 - Feb. 15	.68					
Feb. 16 - Mar. 1	.66					
Mar. 2 - Mar. 15	.87					
Mar. 16 - Mar. 29	.75					
Mar. 30 - Apr. 12	.85					
Apr. 13 - Apr. 26	.85					
Apr. 27 - May 10	.87					
May 11 - May 24	.85					
May 25 - June 7	.88					
June 8 - June 21	.90					
June 22 - July 5	.92					
July 6 - July 19	.95					
July 20 - Aug. 2	1.00					
Aug. 3 - Aug. 16	.99					
Aug. 17 - Aug. 30	.86					
Aug. 31 - Sept. 13	.90					
Sept. 14 - Sept. 27	.91					
Sept. 28 - Oct. 11	.89					
Oct. 12 - Oct. 25	.90					
Oct. 26 - Nov. 8	.95					
Nov. 9 - Nov. 22	1.00					
Nov. 23 - Dec. 6	1.00					
Dec. 7 - Dec. 20	1.08					
Dec. 21 - Jan. 3/86	1.08					

Average	.89					
Range	.66-1.08					
% Outside Recommended Limits	16%					
No. of Samples	26					

FLUORIDE LEVELS/1985

TABLE 1

TOWN \ PERIOD NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
ALTONA	1.04	1.02	0.92	0.89	1.00	1.25	1.44	1.45	1.45	1.35	1.33	1.33		1.30	1.38	1.50	1.44	1.16	0.96	1.00	1.19	1.26	1.21	1.17	1.27	1.22
BALDUR	0.88	0.87		0.89	0.95	0.99	0.95	1.02	0.98	0.82	0.95	0.94	0.93	0.98	0.97	1.09	1.00	1.27	0.95	1.01	1.12	1.05	1.05	0.97	1.12	1.28
BOISSEVAIN	1.22	1.22	1.18		1.18	1.23	1.37		1.12		1.07	1.20	1.20	1.02	1.20	1.16	0.80	0.94	1.12	1.08					0.84	0.80
BRANDON	0.99	0.94	0.97	1.08	0.95	0.91	1.09	1.03	0.94	0.88	0.88		0.98	0.98	0.87	1.03	1.08	1.22	0.94	1.35	1.30	1.26	1.37	1.28	1.33	1.25
CARMAN	0.80	1.03	1.02	0.84		0.87	0.99	0.97	1.08	0.96	1.15	1.13	1.05	1.02	1.01	0.87	0.79		0.87	0.91	0.95	0.85	0.87		1.04	0.93
CRANBERRY PORTAGE	0.77		1.02		1.00	1.15	0.91	1.08	1.18	0.64	1.00	1.09	1.20			1.11	1.08	1.08	1.04	1.09	1.10	0.88	.88		0.95	1.13
DAUPHIN	0.78	0.78	0.87	1.03	0.74	0.85	0.95	0.65	0.84	1.00	1.00	0.90	0.85	0.86	0.76	0.64	0.80	0.72	0.83	0.58	0.57	0.69	0.71	0.82	0.66	0.76
DELORAINE	1.04	1.03	0.95		1.06	0.83	0.87	0.80	0.87	0.96	0.98	0.95	1.03	0.82	1.08	1.22	1.25	1.37	1.30	1.35	1.33	1.42	1.40	1.22	1.00	1.33
ERICKSON	0.87	1.10	1.07	0.93	1.15	1.07	0.94	0.76	0.98	1.16	0.81	0.93	0.84	0.90	1.14	1.09	1.17		1.19	1.10	0.92	1.00	0.87	0.97	0.76	1.14
GILLAM														1.47	1.25	1.27	1.20	1.28						1.00		
GIMLI (TOWN)	1.04	1.00	1.03	0.95	0.83	0.84	0.90	1.00	1.07	0.91	1.00	0.96	0.96	0.98	1.00	1.04	1.08	1.17	1.05	0.95	1.00	1.14	1.12	1.07	0.90	1.10
GLADSTONE	0.91	0.87	1.03	0.98	0.98	0.97	1.11	1.10	0.98	0.97	1.04	0.99	0.87	0.82	0.89	1.00	1.07	1.10	1.00	1.14	1.14	1.19	1.20	0.99	1.26	1.28
HAMIOTA	1.07	1.03	1.10	0.85	0.92	0.90	0.99	0.98	0.99	0.86	0.78	0.95	0.90	0.91	0.95	1.30	1.27	1.21	1.09	1.45	1.12	1.00	1.10	1.35	1.35	0.99
HARTNEY	1.27	1.28	1.07		0.88	0.87	0.93	0.90	1.10	1.00	1.05	1.03	0.93	0.98		1.16	1.08	1.12	0.85	0.92	1.14	1.20	1.05	1.45	1.25	1.20
KILLARNEY	1.37	0.65	0.75	1.18	1.18	1.08	1.37	1.42	1.13	1.09	1.35	1.25		0.95	1.18	1.03	1.50	1.07	1.50	1.38	1.09	1.54	1.30	1.50	0.65	1.30
LAC DU BONNET		1.27	1.27	1.17	1.23	0.89	1.13	1.12	1.57	1.30	0.88	1.13	1.24	1.15	0.76								0.75	1.03	1.00	1.04
MACGREGOR	1.04	0.88	0.95	1.04	0.95	0.91	1.03	1.00	1.03	0.91	1.00	1.00	1.10	1.06	1.00	1.12	0.91	1.17	1.30	1.25	1.27	1.35	1.10	1.13	1.25	1.35
MANITOU	1.04	1.10	1.05	1.05	0.94	0.92	1.03	0.97	1.03	1.00	1.05	1.07	1.08	1.06	1.10	1.09	0.94	1.08	1.07	1.08	1.13	1.15	1.20	1.17	1.22	1.25
MCCREARY	1.00	1.00	1.04	0.98	1.01	0.91	1.07	1.12	0.95	1.01	0.95	0.97	0.98	1.11	1.05	1.09	1.07	1.04	1.22	1.30	1.14	1.14	1.14	1.17	1.15	1.20
MINNEDOSA						0.73	0.75	0.70		0.95	0.84															
NORDEN	1.20	1.17	1.23	1.20	1.15	1.12	1.07	1.14	1.28	0.85	1.17	0.95	1.20	1.30	0.89	1.04	0.87	0.95	1.00	1.09	1.12	0.96	1.09	0.89	1.08	1.03
NEEPAWA	1.13	1.06	1.05	1.00	0.84	0.91	0.98	1.06	1.00	0.88	1.00	0.36	0.89	0.80	0.89	0.99	1.12	1.12	1.04	1.14	0.95	0.96	1.10	1.08	1.08	1.18
PILOT MOUND	1.04	1.06	1.13	1.03	1.01	0.84	0.94	0.90	0.90	0.82	0.77	0.87	0.80	0.95	1.00	0.96	0.87	0.98	0.87	0.95	0.78	0.83	1.07	1.10	1.12	1.40
PINAWA	0.78	0.97	0.93	0.79	0.87	0.82	1.13	1.16	1.38	0.86	0.80	0.71		1.47	1.24	0.80	0.77	0.94	0.80	0.93	0.97	1.05	1.07	0.86	1.13	0.97
PORTAGE	1.07	1.05	1.10		1.11	1.12	0.88	1.05	1.08	0.78	1.04	1.09	1.18	1.05	0.77	0.83	0.99		1.09	1.14	1.45	1.14	1.26	1.07	1.25	1.08
RESTON	0.95	0.94	0.98	0.89	1.10	1.05	1.11	1.14	0.91	0.92	0.88	0.99	1.02	1.06	1.10	1.08	0.82	1.08	1.12	1.14	1.03	1.23	1.10	1.23	1.08	1.15
RIVERS	1.44	0.28	0.24	1.35	0.23	0.20	0.20	1.50	1.33	0.35	1.75	0.27	0.24	0.18	0.25	0.13	0.12		0.16	0.16	0.15	0.19	1.50	0.24	0.19	0.17
ROBLIN	1.17	1.24	1.23	0.97	0.79	1.09	1.13	1.03	1.37	0.82	1.05	0.56	1.09	0.70	0.95	0.96	0.96	0.95	0.77	0.93	1.03	1.00	1.09	1.00	1.13	1.25
ROSSBURN	1.07	1.15	0.87	1.05	1.23	0.69	1.07	0.83	1.07	0.85	0.80	0.90	0.85	0.83	0.93	0.87			1.18	1.22	1.14	1.10	1.10	1.00	1.17	1.50
RUSSELL	1.17	0.99	0.98		1.20	1.01	0.99	1.00	0.99	0.82	0.84	0.94	1.10	0.86	0.86	1.03	1.23	1.27	1.35	1.30	0.91	0.31	1.35	1.15	1.13	1.08
SOURIS	1.00	1.03	1.08	1.01	1.00	0.99	1.05	1.05	1.16	1.03	0.91	0.96		0.88	1.00	1.04	0.95	1.27	1.13	1.08	1.23	1.12	1.10	1.20	1.22	1.17
STEINBACH	1.03	1.00	1.05	0.97	0.95	0.95	1.00	1.00	0.98	1.00	0.87	0.95	0.96	0.98	1.03	0.98	1.03	1.08	1.07	1.08	1.12	1.13	1.15	1.00	1.08	1.08
SWAN RIVER	1.07	1.12	0.95	1.04	0.94	1.30	1.32	1.12	0.83	0.85	1.29	1.13	1.40	1.09	1.10	0.96		0.84	0.85	1.14	1.24	1.20	1.29	1.23	1.98	1.25
THE PAS	1.17	1.09	1.07	1.09	1.15	1.07	1.03	0.85	1.08	0.95	1.02	1.05	1.08	1.11	1.00	1.08	0.99		1.10	1.10	1.09	1.17	1.27	1.13	1.25	1.24
TREHERNE	1.03	0.77	1.09	1.30	0.83	0.99	0.78	1.19	0.90	3.14	0.88	0.94	0.97	1.02	1.00	1.12	1.12	0.90	0.70	0.87	2.06	1.29	1.07	1.35	1.00	0.84
VIRDEN	0.95	2.50	0.70	0.53	1.00	1.04	0.68	0.90	1.07	1.00	1.08	0.33	1.05	1.14	0.93	0.62	0.98	0.96	1.00	1.13	1.03	0.30	1.00	1.03	1.04	1.10
WINKLER	1.00	0.98	1.00	0.97	0.98	0.91	0.95	0.97	1.03	1.00	0.99	0.97	1.05	1.06	1.04	1.06	1.12	1.23	1.25	1.25	1.23	1.20	1.15	1.10	1.17	1.25
WINNIPEG	0.80	0.79	0.68	0.66	0.87	0.75	0.85	0.85	0.87	0.85	0.88	0.90	0.92	0.95	1.00	0.99	0.86	0.90	0.91	0.89	0.90	0.95	1.00	1.00	1.08	1.08
GIMLI	1.00	0.95	0.91	0.97	1.00	1.03	0.99			0.90	0.91	0.92	1.05	0.98	0.98	0.90	1.07	1.26	1.40	1.20	1.13	1.14	1.15	1.00	1.17	1.16
CFS BEAUSEJOUR						1.12	1.00	1.11		1.00	0.88												1.30	1.18		
CFS GYPSUMVILLE						1.17	1.18	0.98	1.03	1.00	1.05												1.07	1.00	1.14	
CFS SNILO						0.87	0.95	0.87		0.91	0.90												1.13		1.15	